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Substance	Name	DSM no.	Remarks	Reference(s)
Abikoviromycin	<i>Nocardia veterana</i>	40777	(= latumcidin, virocidin)	
	<i>Streptomyces abikoensis</i>	40831		
Aburamycin	<i>Streptomyces aburaviensis</i>	40033		
	<i>Streptomyces minutiscleroticus</i>	40301		
Acetaldehyde dehydrogenase	<i>Clostridium kluyveri</i>	555		960, 1967, 1968
Acetate kinase	<i>Moorella thermoacetica</i>	521		2186
Acetic acid	<i>Acetobacter pasteurianus</i>	2324		
	<i>Gluconacetobacter xylinus</i>	2325		
alpha-Acetolactate decarboxylase	<i>Bacillus licheniformis</i>	8785		4582
Acetomycin	<i>Streptomyces ramulosus</i>	40100		591
Acetone	<i>Clostridium acetobutylicum</i>	792		1092, 5301
	<i>Clostridium acetobutylicum</i>	1731	(Brit. Pat. 4845; U.S. Pat. 1,315,585)	1092, 3352, 3353
	<i>Clostridium acetobutylicum</i>	1732	(Brit. Pat. 4845; U.S. Pat. 1,315,585)	1900, 1901, 3352, 3353
	<i>Clostridium acetobutylicum</i>	4685		
	<i>Clostridium acetobutylicum</i>	6228	(U.S. Pat. 4,521,516)	4173, 4174
	<i>Clostridium beijerinckii</i>	1739		
	<i>Clostridium beijerinckii</i>	6422		4186

	<i>Clostridium saccharobutylicum</i>	13864		
	<i>Clostridium saccharoperbutylacetonicum</i>	2152	(U.S. Pat. 2,945,786)	3355
Acetone reductase	<i>Pichia angusta</i>	70277		4520
3-Acetoxyisoprene-4,15-diol	<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	841		1200
Acetylcholine	<i>Lactobacillus plantarum</i>	2601		2612
β-N-Acetylglucosamidase	<i>Monilinia fructigena</i>	2677		2632
β-N-Acetylhexosaminase	<i>Acremonium persicinum</i>	1073		3649
Achromoviromycin	<i>Streptomyces achromogenes</i> subsp. <i>achromogenes</i>	40028		550
Acidomycin	<i>Streptomyces</i> sp.	40798	(actithiazic acid, aliomycin)	598
cis-Aconitic acid decarboxylase	<i>Aspergillus terreus</i>	826		1245
Acronycin	<i>Cunninghamella blakesleeana</i>	1906		1186
	<i>Cunninghamella elegans</i>	1908		1186
Acronycin, transformation of	<i>Aspergillus niger</i>	821		
	<i>Cunninghamella echinulata</i>	1905		
Acrylic acid	<i>Clostridium propionicum</i>	1682		2129
Actinogen	<i>Streptomyces</i> sp.	40602	(U.S. Pat. 3,060,099)	
Actinomycetin	<i>Streptomyces griseus</i> subsp. <i>solivfaciens</i>	40933		
Actinomycin	<i>Streptomyces regensis</i>	40551		
	<i>Streptomyces showdoensis</i>	40504		
Actinomycin B	<i>Streptomyces antibioticus</i>	40234		
Actinomycin B complex	<i>Streptomyces</i> sp.	40417		
Actinomycin C	<i>Streptomyces anulatus</i>	40128		
	<i>Streptomyces chrysomallus</i> subsp. <i>fumigatus</i>	41424		573
	<i>Streptomyces anulatus</i>	40265		

	<i>Streptomyces parvus</i>	40348		
Actinomycin D	<i>Streptomyces parvulus</i>	40048		
Actinomycin X	<i>Streptomyces antibioticus</i>	40234		
	<i>Streptomyces antibioticus</i>	40764		
	<i>Streptomyces anulatus</i>	40203		
	<i>Streptomyces galbus</i>	40089		573
	<i>Streptomyces lanatus</i>	40090		
	<i>Streptomyces michiganensis</i>	40015		
	<i>Streptomyces murinus</i>	40091		
Actinomycin Z	<i>Streptomyces fradiae</i>	40711		
Actinomycin-complex	<i>Streptomyces flavovirens</i>	40062		
	<i>Streptomyces regensis</i>	40551		
	<i>Streptomyces showdoensis</i>	40504		
Actinospectacin	<i>Streptomyces netropsis</i>	40093	(= M-141)	557
	<i>Streptomyces spectabilis</i>	40512		
Actiphenol	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40695		
Actithiazic acid	<i>Streptomyces cinnamomensis</i>	40803		
	<i>Streptomyces lydicus</i>	40461		
	<i>Streptomyces</i> sp.	40798		
	<i>Streptomyces virginiae</i>	40094		
Actitiocin	<i>Nonomuraea pusilla</i>	43357		
Acumycin	<i>Streptomyces griseoflavus</i>	40717		
Acylamidases	<i>Mycobacterium kansasii</i>	43224		
Adenine nucleotide	<i>Azotobacter beijerinckii</i>	1041		
Adenosyl-2-methylmethionine	<i>Pichia jadinii</i>	2361		2488
Adenosyl-D-methionine	<i>Pichia jadinii</i>	2361		2488
Adenylate cyclase	<i>Phycomyces blakesleeanus</i>	1359		3654
ADP	<i>Corynebacterium ammoniagenes</i>	20305	(U.S. Pat. 3,762,999)	3359

Aflatoxin	<i>Aspergillus parasiticus</i>	2038		1216
Aflatoxin B1	<i>Aspergillus parasiticus</i>	1300		1236
Aflatoxins B and G	<i>Aspergillus parasiticus</i>	5771		
Agarase	<i>Flavobacterium flevense</i>	1076		1440, 1441
L-Alanine	<i>Comamonas testosteroni</i>	1455		1796, 2200
L-Alanine dehydrogenase	<i>Halobacterium salinarum</i>	668		1610
Alanosine	<i>Streptomyces alanosinicus</i>	40606	(an anti-tumor, anti-viral and anti-fungal antibiotic)	
Alazopeptin	<i>Streptomyces griseoplanus</i>	40009		563
Albanoursin	<i>Streptomyces albulus</i>	40492		
Alcohol dehydrogenase	<i>Pichia angusta</i>	70277		4520
	<i>Sulfolobus solfataricus</i>	5833		4148
Alcohol oxidase	<i>Pichia angusta</i>	70277		4519
Alginate	<i>Azotobacter vinelandii</i>	576		693
Alkaloids	<i>Claviceps fusiformis</i>	2942		2742
n-Alkane oxidizing enzymes	<i>Yarrowia lipolytica</i>	1345		2265
Alternarioide	<i>Alternaria alternata</i>	1102		
Althiomycin	<i>Streptomyces althioticus</i>	40092		536
	<i>Streptomyces matensis</i>	40188		
Amicetin	<i>Streptomyces plicatus</i>	40319		
	<i>Streptomyces sindenensis</i>	40255		
	<i>Streptomyces</i> sp.	40054		554
	<i>Streptomyces vinaceusdrappus</i>	40470		
D-Amino acid oxidase	<i>Fusarium oxysporum</i>	12646		
Amino acid racemase	<i>Pseudomonas putida</i>	3263		
Amino acids	<i>Streptomyces</i> sp.	40485	(U.S. Pat. 3,219,543)	
3'-Amino-3'-deoxyadenosine	<i>Helminthosporium</i> sp.	1081		2062
3-Amino-4,7-dihydroxycoumarin hydrochloride	<i>Streptomyces caeruleus</i>	40292	(U.S. Pat. 3,049,550)	
2-(2-Amino-4-chlorophenoxy)-benzyl	<i>Hormodendrum</i> sp.	3015		2740

alcohol				
5-Amino-imidazole carboxamide riboside	<i>Corynebacterium</i> sp.	20128		3389
Aminoacylase	<i>Streptomyces chartreusis</i>	40085	(U.S. Pat. 4,699,879)	
	<i>Streptomyces</i> sp.	40030	(U.S. Pat. 4,699,879)	
Aminocidin	<i>Streptomyces chrestomyceticus</i>	40545		
6-Aminopenicillanic acid (amides)	<i>Escherichia coli</i>	1116		
Aminopeptidase	<i>Clostridium histolyticum</i>	1126		
	<i>Vibrio proteolyticus</i>	30189		2043
Amphotycin	<i>Streptomyces canus</i>	40017		546
Amphotericin A, B	<i>Streptomyces nodosus</i>	40109		
Amylase	<i>Aspergillus foetidus</i>	734		2061, 3596
alpha-Amylase	<i>Bacillus amyloliquefaciens</i>	7		698, 699
Amylase	<i>Bacillus amyloliquefaciens</i>	1060		1402
	<i>Bacillus licheniformis</i>	8785	(thermostable)	4582
	<i>Endomyces fibuliger</i>	70554		602
	<i>Paenibacillus macerans</i>	24		81
	<i>Paenibacillus polymyxa</i>	356		
	<i>Rhizomucor miehei</i>	1330		1249
	<i>Rhizomucor pusillus</i>	1331		1249
	<i>Thermoanaerobacter acetoethylicus</i>	2359		3576
	<i>Thermoanaerobacter brockii</i> subsp. <i>finii</i>	3389	thermostable	3576
	<i>Thermoanaerobacter ethanolicus</i>	2246	thermostable	3576
β -Amylase, alkaline	<i>Bacillus halodurans</i>	497		152, 153, 643, 1733
Amylase, alkaline	<i>Bacillus halodurans</i>	2513		2587
	<i>Bacillus pseudofirmus</i>	2516		2585
	<i>Bacillus pseudofirmus</i>	2517		
	<i>Bacillus</i> sp.	2518		

	<i>Bacillus</i> sp.	2519		
	<i>Bacillus</i> sp.	2520		2585
Amylase, halophilic	<i>Nesterenkonia halobia</i>	20541		1598
Amylase, thermoacidophilic	<i>Alicyclobacillus acidocaldarius</i> subsp. <i>acidocaldarius</i>	446		1733
Amylase, thermostable	<i>Bacillus</i> sp.	405		39, 44, 47, 59
	<i>Geobacillus stearothermophilus</i>	2357		2439
	<i>Thermoanaerobacterium thermosaccharolyticum</i>	572		3576
	<i>Thermoanaerobacterium thermosulfurigenes</i>	3896		3097, 3098, 3099, 3100, 3596
Amylocyanine pigment	<i>Streptomyces coelicolor</i>	40233		
Angolamycin	<i>Streptomyces eurythermus</i>	40014		553
Anilin	<i>Aspergillus ochraceus</i>	824		
Anilin oxidase	<i>Geotrichum candidum</i>	6401		
5-Anilino-1,2,3,4-thiaziazole, hydroxylation of	<i>Rhizopus oryzae</i>	854		
Anisomycin	<i>Streptomyces griseolus</i>	40854	(U.S. Pat. 2,691,618)	
Anthocyanidine	<i>Streptomyces</i> sp.	40425		
Anti-tumor agent	<i>Streptococcus pyogenes</i>	2071		
	<i>Streptococcus pyogenes</i>	2072		
Anti-tumor agents, transformation	<i>Penicillium brevicompactum</i>	3825		
Anti-tumor antibiotic E-73	<i>Streptomyces albulus</i>	40492		
Antibiotic 41,043 and 41,494	<i>Amycolatopsis fastidiosa</i>	43855	(U.S. Pat. 4,031,206)	
Antibiotic 41012	<i>Actinoplanes</i> sp.	43867	(U.S. Pat. 4,001,397)	
Antibiotic 672-A	<i>Actinoplanes brasiliensis</i>	43805		2830
Antibiotic 8327 complex	<i>Actinoplanes</i> sp.	43866	(U.S. Pat. 4,239,751)	
Antibiotic A 3823	<i>Streptomyces cinnamomensis</i>	1042	(U.S. Pat. 3,501,568)	
Antibiotic complex	<i>Micromonospora chalcea</i>	43895	(U.S. Pat.	

			3,767,793)	
Antibiotic compound 46,192	<i>Streptosporangium roseum</i> subsp. <i>incarnatum</i>	44111	(U.S. Pat. 4,083,963)	
Antibiotic DX27	<i>Streptomyces</i> sp.	40812	(U.S. Pat. 3,320,128)	
Antibiotic F3463	<i>Streptomyces djakartensis</i>	40743	(German Pat. 1,077,381)	
Antibiotic L13365	<i>Actinoplanes</i> sp.	43901	(Jpn. Pat. 53-2402), 1978	
Antibiotic PA-1033B	<i>Streptomyces</i> sp.	40816	(U.S. Pat. 3,021,259)	
Antibiotic SF-2052	<i>Dactylosporangium matsuzakiense</i>	43810	(U.S. Pat. 4,242,327)	5159
Antibiotic U-20,661				
Antibiotic XK-49-1-B-2	<i>Streptosporangium violaceochromogenes</i>	43849	(U.S. Pat. 3,922,343)	
Antibiotic ZN-6	<i>Acremonium fusidioides</i>	3533	(U.S. Pat. 3,072,531)	3711
Antibiotics	<i>Clitopilus passeckerianus</i>	1602		
	<i>Emericellopsis minima</i>	925	(U.S. Pat. 3,821,367)	2294, 2295
	<i>Pleurotellus hypnophilus</i>	2156		1878
Antibiotics 43334 and 43596	<i>Streptosporangium cinnabarinum</i>	44094	(U.S. Pat. 4,032,632)	
	<i>Streptosporangium koreanum</i>	44110	(U.S. Pat. 4,032,632)	
Antibiotics CP-54715 and CP-54716	<i>Catenuloplanes japonicus</i>	44102	(U.S. Pat. 4,287,182)	
Antifungal antibiotics Sch 16656 and 67-121 complex	<i>Couchioplanes caeruleus</i> subsp. <i>caeruleus</i>	43634	(U.S. Pat. 4,027,015)	4761
Antimicrobial agents	<i>Aspergillus clavatus</i>	873	(U.S. Pat. 3,817,835)	3625
Antimycin A	<i>Streptomyces</i> sp.	40857		
Antiviral agent statalon	<i>Penicillium brevicompactum</i>	62872	(U.S. Pat. 3,108,047)	3730
Apotryptophanase	<i>Escherichia coli</i>	11250		
Apramycin	<i>Streptoalloteichus hindustanus</i>	44523		8194
Aquamycin	<i>Streptomyces corchorusii</i>	40220		

alpha-L-Arabino-furanosidase	<i>Monilinia fructigena</i>	2677		2631
alpha-D-Arabinofuranidase	<i>Microbacterium arabinogalactanolyticum</i>	8611		4975
D-Arabitol	<i>Hyphopichia burtonii</i>	3505		2973
Aranciamycin	<i>Streptomyces echinatus</i>	40730		
Arenaemycine	<i>Streptomyces arenae</i>	40734		
Arginine decarboxylase	<i>Escherichia coli</i>	301		983
Aryl acylamidase	<i>Delftia acidovorans</i>	8370		5216
Arylaldehydes and alcohols, reduction of	<i>Eupenicillium baarnense</i>	1666		
Arylamide amidase	<i>Achromobacter piechaudii</i>	11386		7942
	<i>Agrobacterium</i> sp.	11401		7942
	<i>Mycobacterium</i> sp.	11399		7942
	<i>Pseudomonas fluorescens</i>	11387		7942
	<i>Pseudomonas putida</i>	11388		7942
	<i>Pseudomonas</i> sp.	11389		7942
	<i>Rhizobium radiobacter</i>	9674		7942
	<i>Rhodococcus erythropolis</i>	9675		7907, 7942
	<i>Rhodococcus erythropolis</i>	9685		7942
	<i>Rhodococcus erythropolis</i>	11397		7942
	<i>Rhodococcus</i> sp.	11398		7942
	<i>Rhodococcus</i> sp.	11511		
	unclassified bacterium	11396		7942
	<i>Variovorax</i> sp.	11402		7942
Ascomycin	<i>Streptomyces hygrosopicus</i> subsp. <i>hygrosopicus</i>	40822		741
Ascospin	<i>Streptomyces canescens</i>	41178	(U. S. Pat. 2,723,216)	545
Ascospin A	<i>Streptomyces canescens</i>	40001	(U.S. Pat. 2,723,216)	545
Ascospin B	<i>Streptomyces canescens</i>	40001	(U.S. Pat. 2,723,216)	545
L-Asparaginase	<i>Escherichia coli</i>	613		2045
	<i>Cupriavidus necator</i>	30029		2039

	<i>Wolinella succinogenes</i>	1740		1847
β-methyl-Aspartase	<i>Clostridium tetanomorphum</i>	528		2149
Aspartate aminotransferase	<i>Escherichia coli</i>	613		
	<i>Methanothermobacter thermautotrophicus</i>	6457		4223
	<i>Sulfolobus solfataricus</i>	5833		4148
Aspartate decarboxylase	<i>Alcaligenes faecalis</i> subsp. <i>faecalis</i>	30032		330
Aspartate family biosynthetic enzymes	<i>Escherichia coli</i>	5210		4436
L-Aspartate β-decarboxylase	<i>Comamonas testosteroni</i>	1455		1797, 1798, 1799, 2201
Aspergillin	<i>Aspergillus niger</i>	737		1055
Asperphenamate	<i>Fennellia flavipes</i>	874		1234
	<i>Penicillium brevicompactum</i>	3825		3720
Astechrome	<i>Aspergillus terreus</i>	826		3608
ATP	<i>Corynebacterium ammoniagenes</i>	20305	(U.S. Pat. 3,762,999)	3359
	<i>Corynebacterium mycetoides</i>	20148	(U.S. Pat. 3,769,165)	1633
ATPase	<i>Methanosarcina mazei</i>	3647		3211
Atrazine degrading enzyme atzC	<i>Pseudomonas</i> sp.	11735		7071
Aureomycin	<i>Streptomyces aureofaciens</i>	40127	(U.S. Pat. 2,482,055)	
	<i>Streptomyces aureofaciens</i>	40642		
	<i>Streptomyces aureofaciens</i>	40643		
	<i>Streptomyces aureofaciens</i>	40703		
Aureothin	<i>Streptomyces thioluteus</i>	40027		
Aureothricin	<i>Streptomyces celluloflavus</i>	40839		
	<i>Streptomyces thioluteus</i>	40027		6581
Autolytic enzymes	<i>Methanothermobacter wolfei</i>	2970		

Avilamycine	<i>Streptomyces viridochromogenes</i>	40721		
Ayfactins A	<i>Streptomyces</i> sp.	40239		
Ayfactins B (heptaenic polyenes)	<i>Streptomyces</i> sp.	40239		
Azacolutin A, B	<i>Streptomyces cinnamoneus</i>	40646		
5-Azacytidine	<i>Streptomyces mobaraensis</i>	40587		
8-Azaguanine	<i>Streptomyces morookaensis</i>	40503		
Azalomycin B+F	<i>Streptomyces hygroscopicus</i> subsp. <i>hygroscopicus</i>	40821	(U.S. Pat. 3,076,746)	808
Azaserine	<i>Streptomyces fragilis</i>	40044		
Azomycin	<i>Streptomyces eurocidicus</i>	40604		
Azoreductase	<i>Pigmentiphaga kullae</i>	13608		8250
	<i>Xenophilus azovorans</i>	13620		8251
Azureomycin	<i>Amycolatopsis azurea</i>	43854		
Bacitracin	<i>Bacillus licheniformis</i>	603		66, 67, 677, 678, 683, 684, 2135
Bacteriochlorophyll	<i>Halorhodospira halochloris</i>	1059		
	<i>Methylobacterium extorquens</i>	1338		
	<i>Methylobacterium radiotolerans</i>	1819		2464
Bacteriochlorophyll g	<i>Heliobacillus mobilis</i>	6151		4321
	<i>Heliobacterium chlorum</i>	3682		3380
Bacteriocin	<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i>	2026		1583
	<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i>	30102		1583
	<i>Lactococcus lactis</i> subsp. <i>cremoris</i>	4645		
Bacteriocin plantaricin S	<i>Lactobacillus pentosus</i>	16366		9991
Balhimycin	<i>Amycolatopsis decaplanina</i>	44594		

Bamicitin	<i>Streptomyces plicatus</i>	40319		
Bandamycin A, B	<i>Streptomyces goshikiensis</i>	40190		
Biomass from potato waste	<i>Acremonium zonatum</i>	1553		
Biotin antagonist	<i>Streptomyces cinnamomensis</i>	40803		
Biphenyl dioxygenase	<i>Burkholderia xenovorans</i>	17367		9828
Biphenyl hydroxylation	<i>Thamnostylum piriforme</i>	2037		
3-keto-Bisnorcholesterol, transformation of	<i>Botryosphaeria rhodina</i>	62078		
	<i>Botryosphaeria rhodina</i>	62079		
Blasticidin A, B, C	<i>Streptomyces griseochromogenes</i>	40499		
Blasticidin S	<i>Streptomyces albus</i> subsp. <i>pathocidicus</i>	40799		
	<i>Streptomyces griseochromogenes</i>	40499		
	<i>Streptomyces morookaensis</i>	40503		
Blasticidin S deaminase	<i>Aspergillus flavus</i>	1959		1193
Blastmycin (= antimycin A3)	<i>Streptomyces blastmyceticus</i>	40029		537
Blastomycin	<i>Streptomyces noboritoensis</i>	40223		
Bleomycin	<i>Streptomyces mobaraensis</i>	40847		
Bleomycin A, B	<i>Streptomyces mobaraensis</i>	40903		2257
Bleomycin-like antibiotics	<i>Streptomyces stramineus</i>	41783		
Blood -anticoagulant myxaline	<i>Myxococcus xanthus</i>	52373		9460
Boromycin	<i>Streptomyces antibioticus</i>	40723		
Borrelicidin	<i>Streptomyces parvulus</i>	40728		
	<i>Streptomyces rochei</i>	40231		
Boticin E	<i>Clostridium</i> sp.	1985		2163, 2164
Botrycidin	<i>Streptomyces aureofaciens</i>	40731		
Bottromycin	<i>Streptomyces bottropensis</i>	40262		

	<i>Streptomyces purpureus</i>	43360		
	<i>Streptomyces</i> sp.	40837	(U.S. Pat. 3,683,073)	
Bradykinine decomposing enzymes	<i>Clostridium</i> sp.	754		
Brevianamide A, B	<i>Penicillium brevicompactum</i>	3825		3719
Bryamycin	<i>Streptomyces hawaiiensis</i>	40042		567
Bundlin A, B	<i>Streptomyces griseofuscus</i>	40191		
2,3-Butanediol	<i>Bacillus licheniformis</i>	8785		4582
	<i>Klebsiella oxytoca</i>	4798		3511, 3512, 3513
	<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i>	4270		
	<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i>	12082		7483
n-Butanol	<i>Clostridium acetobutylicum</i>	792		1092, 5301
	<i>Clostridium acetobutylicum</i>	1731		1092, 3352, 3353
	<i>Clostridium acetobutylicum</i>	1732		1900, 1901, 3352, 3353
	<i>Clostridium acetobutylicum</i>	4685		
	<i>Clostridium acetobutylicum</i>	6228		4173, 4174
	<i>Clostridium beijerinckii</i>	1739		
	<i>Clostridium beijerinckii</i>	6422		4186
	<i>Clostridium beijerinckii</i>	6423		4186
	<i>Clostridium saccharobutylicum</i>	13864		
	<i>Clostridium saccharoperbutylacetonicum</i>	2152	(U.S. Pat. 2,945,786)	3355
	<i>Clostridium tetanomorphum</i>	4474		3215
O-Butylhomoserine	<i>Clostridium saccharoperbutylacetonicum</i>	2152	(extracellular formation)	2167

Byssochlamyptidase A	<i>Byssochlamys fulva</i>	1808		1175
C-076 and derivatives	<i>Streptomyces avermitilis</i>	41443	(U.S. Pat. 4,412,991)	
	<i>Streptomyces avermitilis</i>	46492	(U.S. Pat. 4,412,991)	
Caelestin	<i>Streptomyces caelestis</i>	40084		542
Caerulomycin	<i>Streptomyces caeruleus</i>	40103		
Calcium-magnesium acetate	<i>Moorella thermoacetica</i>	6867		4250
Camphomycin	<i>Streptomyces rutgersensis</i> subsp. <i>castelarensis</i>	40830		
Canarius (U-13, 714)	<i>Streptomyces canarius</i>	40528		
Candicidin	<i>Streptomyces coelicolor</i>	40624		2228
Candidin	<i>Streptomyces olivoverticillatus</i>	40237		
Candimycin	<i>Streptomyces abikoensis</i>	40253		
Capreomycin	<i>Dactylosporangium</i> sp.	43911	(U.S. Pat. 4,026,766)	
Capreomycin I, II	<i>Saccharothrix mutabilis</i> subsp. <i>capreolus</i>	40225		
Capsule depolymerase	<i>Azotobacter vinelandii</i>	576		
Carbohydases	<i>Alternaria solani</i>	2947	(extracellular)	2731
Carbomycin				
Carbon monoxide dehydrogenase	<i>Pseudomonas carboxydohydrogena</i>	1083		1470
Carcinomycin	<i>Streptomyces</i> sp.	40572		
L-Carnitine	<i>Salmonella enterica</i> subsp. <i>enterica</i>	4883	(U.S. Pat. 4,650,759)	
	<i>Serratia grimesii</i>	30063	(U.S. Pat. 4,650,759)	
β-Carotene	<i>Blakeslea trispora</i>	2387		3703
	<i>Blakeslea trispora</i>	2388		3703
Carotenoid	<i>Sphingomonas echinoides</i>	1805		
Carotenoids	<i>Acremonium diospyri</i>	2939		2739
	<i>Chloroflexus aurantiacus</i>			
	<i>Chondromyces apiculatus</i>	436		
	<i>Ectothiorhodospira</i>	237		

	<i>mobilis</i>			
	<i>Ectothiorhodospira mobilis</i>	238		
	<i>Ectothiorhodospira mobilis</i>	239		
	<i>Ectothiorhodospira mobilis</i>	240		
	<i>Ectothiorhodospira shaposhnikovii</i>	243		
	<i>Halorhodospira halophila</i>	244		
	<i>Hypomyces armeniacus</i>	1596		
	<i>Myxococcus fulvus</i>	434		
	<i>Rhodobacter sphaeroides</i>	158		
	<i>Rhodospirillum rubrum</i>	107		
	<i>Rhodospirillum rubrum</i>	467		
	<i>Rubrivivax gelatinosus</i>	1709		
	<i>Thiocapsa roseopersicina</i>	217		
	<i>Thiocapsa roseopersicina</i>	221		
	<i>Thiocystis gelatinosa</i>	215		
	<i>Thiocystis violacea</i>	207		
	<i>Thiocystis violacea</i>	208		
Carrageenase	<i>Pseudoalteromonas carrageenovora</i>	6820		
Caryomycin	<i>Streptomyces filamentosus</i>	40022		555
Catenarin	<i>Talaromyces stipitatus</i>	2425		
Catenulin	<i>Streptomyces catenulae</i>	40258		
Celesticetin	<i>Streptomyces caelestis</i>	40084		
Cellobiose dehydrogenase	<i>Myceliophthora thermophila</i>	1799		3679
Cellobiose oxidase	<i>Phanerochaete chrysosporium</i>	1547		1151
Cellostatin	<i>Streptomyces cellostaticus</i>	40189		
Cellulase	<i>Cellulomonas uda</i>	20108		401
	<i>Chaetomium globosum</i>	1962		1197
	<i>Clostridium thermocellum</i>	1237		2190, 5308

	<i>Clostridium thermocellum</i>	2360	(extracellular)	2192
	<i>Myceliophthora thermophila</i>	1799		1172
	<i>Myceliophthora thermophila</i>	1807		
	<i>Myrothecium verrucaria</i>	2087		1217
	<i>Phanerochaete chrysosporium</i>	1547		3666
	<i>Thermoascus aurantiacus</i>	1831		
	<i>Trichoderma longibrachiatum</i>	768		1057
Cellulase, alkaline	<i>Bacillus</i> sp.	2521		2622
	<i>Bacillus</i> sp.	2522		2585, 2622
Cellulase, enhanced	<i>Trichoderma longibrachiatum</i>	769		1058
Cellulose	<i>Gluconacetobacter xylinus</i>	2004		2290, 2291
	<i>Gluconacetobacter xylinus</i>	2325		2290, 2291
	<i>Sarcina ventriculi</i>	286		
	<i>Sarcina ventriculi</i>	300		
Cepabactin	<i>Burkholderia cepacia</i>	7288		4855
Cephalosporin	<i>Acremonium strictum</i>	2399	(U.S. Pat. 3,825,473)	2638
Cephalosporin C	<i>Acremonium persicinum</i>	1073		1222, 2070
Cephalosporins	<i>Escherichia coli</i>	1116	by conversion (U.S. Pat. 3,945,888)	1543
	<i>Streptomyces lipmanii</i>	40752		
Cephalosporins C, N, P	<i>Acremonium chrysogenum</i>	880	(U.S. Pat. 3,979,260)	3630
Cephamicin C	<i>Streptomyces clavuligerus</i>	41826		8809, 8810
Cephemimycin	<i>Streptomyces</i> sp.	747	(U.S. Pat. 3,865,693)	1813
Chaetomin	<i>Chaetomium cochliodes</i>	1909		1188, 1189
Chalcomycin	<i>Streptomyces albogriseolus</i>	40712		
Chartreusin	<i>Streptomyces chartreusis</i>	40085		

	<i>Streptomyces viridochromogenes</i>	40784		
Chelocardin	<i>Amycolatopsis sulphurea</i>	46092	(U.S. Pat. 3,155,582)	
Chitin synthetase	<i>Mucor rouxii</i>	1191		1103
Chitosanase	<i>Lysobacter enzymogenes</i> subsp. <i>enzymogenes</i>	1895		1461
Chloramphenicol	<i>Kutzneria kofuensis</i>	43851		
	<i>Streptomyces omiyaensis</i>	40552		
	<i>Streptomyces pseudovenezuelae</i>	40212		
	<i>Streptomyces purpureus</i>	43359		
	<i>Streptomyces purpureus</i>	43360		
	<i>Streptomyces purpureus</i>	43361		
	<i>Streptomyces purpureus</i>	43362		
	<i>Streptomyces venezuelae</i>	40230		5037
	<i>Streptomyces venezuelae</i>	40634		
Chloramphenicol analogs	<i>Rhodococcus erythropolis</i>	311		
Chlorite dismutase	<i>Dechloromonas agitata</i>	13637		8893
5-Chloroflexirubin	<i>Flexibacter filiformis</i>	527		1465
Chloroisoxazolone amino acid antitumor metabolites	<i>Streptomyces</i> sp.	924	(U.S. Pat. 3,944,562)	1824, 1825, 1826, 1827, 1828
Chloromycetin	<i>Streptomyces venezuelae</i>	40755		
Chloroperoxidase	<i>Caldariomyces fumago</i>	1256		2746
Chlorothricin	<i>Streptomyces antibioticus</i>	40725		
Chlortetracycline	<i>Streptomyces aureofaciens</i>	40127		
	<i>Streptomyces aureofaciens</i>	40631		
7-Chlortetracycline	<i>Streptomyces lusitanus</i>	40568	(U.S. Pat. 3,401,088)	
	<i>Streptomyces</i> sp.	40239	(U.S. Pat. 2,712,517)	
Cholanic acid derivates	<i>Arthrobacter</i> sp.	4639	(U.S. Pat. 4,359,529)	3385
	<i>Arthrobacter</i> sp.	4640	(U.S. Pat. 4,359,529)	3385

Cholesterol oxidase	<i>Rhodococcus erythropolis</i>	743		
	<i>Rhodococcus erythropolis</i>	43066		
Cholic acid	<i>Emericella nidulans</i>	820		3603
Chondroitinase (ABC and AC)	<i>Pedobacter heparinus</i>	2366		2355
Chorismic acid	<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i>	5758		4008, 4009
Chrysomycin M+V	<i>Streptomyces albaduncus</i>	40478	(U.S. Pat. 3,265,490)	
Ciclacidins A, B	<i>Streptomyces capoamus</i>	40494		
Ciclamicin	<i>Streptomyces capoamus</i>	40494		
Cinerubin	<i>Streptomyces cinereoruber</i> subsp. <i>fructofermentans</i>	40692		741, 742
	<i>Streptomyces diastatochromogenes</i>	40700		
	<i>Streptomyces niveoruber</i>	40638		
Cinerubin-like antibiotic	<i>Streptomyces bobili</i>	40056		
Cinerubins A, B	<i>Streptomyces galilaeus</i>	40481		
Cinnomycin	<i>Streptomyces cinnamoneus</i>	40005		6385
Cirramycin A, B	<i>Streptomyces cirratus</i>	40479	(U.S. Pat. 3,159,540)	
Citraconic anhydride	<i>Aspergillus wentii</i>	3701		
Citrate lyase	<i>Clostridium sphenoides</i>	614		
	<i>Clostridium sporosphaeroides</i>	1294		
	<i>Rubrivivax gelatinosus</i>	149		1037, 1038, 1983
(R)-Citrate synthase	<i>Clostridium acidurici</i>	604		1904
Citric acid	<i>Aspergillus foetidus</i>	734		3597
	<i>Aspergillus niger</i>	821		1238
	<i>Aspergillus niger</i>	823		1241
	<i>Aspergillus niger</i>	872		1231
	<i>Aspergillus niger</i>	2466		3705
	<i>Pichia haplophila</i>	70365	(U.S. Pat. 3,733,253)	3751
	<i>Rhodococcus erythropolis</i>	312	(U.S. Pat.	

			3.691.012)	
	<i>Yarrowia lipolytica</i>	3286		
Citrinin	<i>Aspergillus carneus</i>	1518		1138
	<i>Penicillium citrinum</i>	1179		1250
	<i>Penicillium citrinum</i>	1997		
	<i>Penicillium expansum</i>	1282		1251
Cladomycin	<i>Streptomyces lilacinus</i>	40254		
Cladosporin	<i>Eurotium glabrum</i>	1370		1120
Clavacin	<i>Aspergillus clavatus</i>	816		1233
Clavicipitic acid	<i>Claviceps fusiformis</i>	2942		2743
Clavulanic acid	<i>Streptomyces clavuligerus</i>	41826		8810
Clostridial aminopeptidase	<i>Clostridium histolyticum</i>	1126		1956, 1957
Cobalamine	<i>Streptomyces humidus</i>	40263		
Coenzyme Q				
Coerulomycin	<i>Streptomyces coeruleus</i>	40146		
Collagenase	<i>Arthrobotrys candida</i>	2021		1213
	<i>Arthrobotrys conoides</i>	2022		1213
	<i>Arthrobotrys oligospora</i>	2023		1213
	<i>Brevibacillus borstelensis</i>	298		42
	<i>Brevibacillus parabrevis</i>	370		42
	<i>Monacrosporium eudermatum</i>	2024		1213
Collinomycin	<i>Streptomyces collinus</i>	40129		
Congocidin	<i>Streptomyces ambofaciens</i>	40053		
	<i>Streptomyces ambofaciens</i>	40697		
Coumermycin complex	<i>Streptomyces rishiriensis</i>	40489		
CP-54715	<i>Catenuloplanes niger</i>	44711	antibiotics	8891
CP-54716	<i>Catenuloplanes niger</i>	44711		8891
Creatine amidohydrolase	<i>Pseudomonas putida</i>	1991		1837, 1838, 1839, 1842
Cremomycin	<i>Streptomyces cremeus</i>	40147		

Croceomycin	<i>Streptomyces arabicus</i>	40252		
Crystalline dextrans	<i>Paenibacillus macerans</i>	2892		81
Crystallomycin	<i>Streptomyces griseoflavus</i>	40709		
Curamycin	<i>Streptomyces curacoii</i>	40107	(U.S. Pat. 3,015,607)	551
Cyanide	Snow mold basidiomycete	1847		
Cyclodextrin-glucanotransferase	<i>Klebsiella oxytoca</i>	7342		3566
Cyclodextrins	<i>Bacillus pseudofirmus</i>	2517	(U.S. Pat. 3,923,598)	2621
	<i>Bacillus</i> sp.	2518	(U.S. Pat. 3,923,598)	2621
	<i>Bacillus</i> sp.	2519	(U.S. Pat. 3,923,598)	2621
	<i>Bacillus</i> sp.	2523	(U.S. Pat. 3,923,598)	2621
	<i>Bacillus</i> sp.	2524	(U.S. Pat. 3,923,598)	2585, 2621
Cycloheximide	<i>Streptomyces albulus</i>	40492		
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40695		
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40817		807
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40855		
Cycloheximide diastereoisomers	<i>Streptomyces albulus</i>	40492		
Cyclopiazonic acid	<i>Penicillium aurantiogriseum</i>	2016		
	<i>Penicillium camemberti</i>	1995		
	<i>Penicillium commune</i>	2211		
Cycloserine	<i>Streptomyces virginiae</i>	40094		
Cyclosporins	<i>Tolypocladium inflatum</i>	915		2077
Cycloviracins	<i>Kibdelosporangium albatum</i>	44149		5713
Cytochrome P-450CAM	<i>Pseudomonas putida</i>	7162		4930
Cytomycin	<i>Streptomyces griseochromogenes</i>	40499		

Cytovirin	<i>Streptomyces olivochromogenes</i>	40828		
Danomycin	<i>Streptomyces albaduncus</i>	40478	(U.S. Pat. 3,265,490)	
Daunomycin	<i>Streptomyces peucetius</i>	40754		1805, 6395
Deacetoxycephalosporin	<i>Acremonium chrysogenum</i>	880	(U.S. Pat. 3,979,260)	3630
Deacetoxycephalosporin C	<i>Acremonium persicinum</i>	1052	(U.S. Pat. 3,979,260)	3630
	<i>Paecilomyces carneus</i>	1051	(U.S. Pat. 3,979,260)	3630
Decaplanin	<i>Amycolatopsis decaplanina</i>	44594		8975
Dehalogenases	<i>Xanthobacter autotrophicus</i>	3874		3764, 4949
Delvomycin				
Demethoxy monobactams	<i>Flexibacter</i> sp.	3098		
7-O-Demethylcaelesticetin	<i>Streptomyces caelestis</i>	918	(U.S. Pat. 3,817,979)	1816, 1817
6-Demethyltetracyclines	<i>Streptomyces psammoticus</i>	40341		1004
2-keto-3-Deoxygluconate	<i>Sulfolobus solfataricus</i>	5833		4146
Deoxynivalenol	<i>Fusarium graminearum</i>	4527		3724
	<i>Fusarium graminearum</i>	4528		3724
Deoxyribonuclease B	<i>Streptosporangium amethystogenes</i> subsp. <i>amethystogenes</i>	46128		
Dermatoxin	<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	20491		
Desmethylnovobiocin	<i>Streptomyces caeruleus</i>	40292		
1-Desoxynojirimycin	<i>Bacillus amyloliquefaciens</i>	7	(Brit. Pat. 155,409)	2277
L-Desoxynojirimycin	<i>Bacillus atrophaeus</i>	675	(Brit. Pat. 155,409)	2277
Detoxin	<i>Streptomyces mobaraensis</i>	40847		
Dextran, class A	<i>Leuconostoc mesenteroides</i> subsp. <i>dextranicum</i>	20187		458
	<i>Leuconostoc mesenteroides</i> subsp.	20240		458

	<i>mesenteroides</i>			
Dextran, class B	<i>Leuconostoc mesenteroides</i> subsp. <i>dextranicum</i>	46216		
Dextran, class C	<i>Leuconostoc mesenteroides</i> subsp. <i>mesenteroides</i>	20241		458
	<i>Leuconostoc mesenteroides</i> subsp. <i>mesenteroides</i>	20343		458
Dextranase	<i>Fusarium proliferatum</i>	764	(extracellular)	1053
	<i>Paecilomyces lilacinus</i>	846		1261
	<i>Penicillium funiculosum</i>	1960		1194
	<i>Penicillium funiculosum</i>	2213		
alpha-1,2-Dextranase debranching	<i>Microbacterium dextranolyticum</i>	8607		4966, 4967
Diaminopimelate decarboxylase	<i>Escherichia coli</i>	1116		1540
Diaphorase	<i>Clostridium kluyveri</i>	555		1969
Dichloromethane dehalogenase	<i>Methylophilus leisingeri</i>	6813		4352, 5186
Dienes	<i>Corynebacterium hoagii</i>	20295	(U.S. Pat. 2,837,464)	1021
	<i>Nocardioides simplex</i>	20130	(U.S. Pat. 2,837,464)	
Dihydrocitrinone	<i>Aspergillus carneus</i>	1518		1138
Dihydronancimycin	<i>Streptomyces aurantiacus</i>	40796		
2,5-Dihydrophenylalanin	<i>Streptomyces parvulus</i>	40722		
Dihydrostreptomycin	<i>Streptomyces humidus</i>	40263	(U.S. Pat. 2,931,756)	
Dihydroxyacetone	<i>Arthrobacter</i> sp.	20413	and other ketoses	1285
Dihydroxyacetone reductase	<i>Pichia angusta</i>	70277		4520
4,4'-Dihydroxybiphenyl	<i>Aspergillus parasiticus</i>	2038		1004
L-Dihydroxyphenylalanine	<i>Aspergillus ochraceus</i>	824		3715
	<i>Gliocladium viride</i>	3704		3715
2,5-Diketo-D-gulonic acid	<i>Pantoea punctata</i>	13700		
2,5-Diketogluconate	<i>Janthinobacterium lividum</i>	1522		852

Diketopiperazines	<i>Penicillium italicum</i>	2755		2636
Dimethylamine dehydrogenase	<i>Hyphomicrobium denitrificans</i>	1869		1769
Dimethylsulfide	<i>Holophaga foetida</i>	6591		
Dirinamycin	<i>Streptomyces venezuelae</i>	40727		
Disaggregating enzyme	<i>Methanosarcina mazei</i>	4556	hydrolyzing <i>M. mazei</i> heteropolysaccharide	3212
Distamycin A, B, C	<i>Streptomyces netropsis</i>	40846		
Diterpenoid metabolites	<i>Cyathus africanus</i>	1593		1156
DNA polymerase Pfu	<i>Pyrococcus furiosus</i>	3638		4571
DNase	<i>Bacillus clausii</i>	2525		2585
endo-DNase A	<i>Saccharomyces cerevisiae</i>	70424		3636
L-Dopa				
Doricin	<i>Streptomyces</i> sp.	40825		
Duramycin	<i>Streptomyces cinnamoneus</i>	40646		
Durhamycin	<i>Streptomyces durhamensis</i>	40539		
Echinomycin (= levomycin, echanomycin, guinomycin A)	<i>Streptomyces albogriseolus</i>	40712		552
	<i>Streptomyces echinatus</i>	40013		552
	<i>Streptomyces</i> sp.	40781		552
Elaiophylin(=azalomycin B)	<i>Streptomyces melanosporofaciens</i>	40318		
Emodin	<i>Talaromyces stipitatus</i>	2425		
Endomycin A	<i>Streptomyces endus</i>	40187		
Endomycin B	<i>Streptomyces endus</i>	40187		
Endomycin complex (=helixin)	<i>Streptomyces antimycoticus</i>	40284		
Endopolygalacturonase	<i>Aureobasidium pullulans</i>	3042		2736
Enoate reductase	<i>Clostridium kluyveri</i>	555		
	<i>Clostridium tyrobutyricum</i>	1460		
	<i>Clostridium tyrobutyricum</i>	2637		2561
Enteromycin	<i>Streptomyces eurocidicus</i>	40051		534

Enterotoxin	<i>Bacillus cereus</i>	2302		
Ergochrome secalonic acid D	<i>Penicillium oxalicum</i>	898		3633
Ergocristine	<i>Claviceps purpurea</i>	715	(U.S. Pat. 3,567,583)	1060
Ergokryptine	<i>Claviceps purpurea</i>	716		
Ergosterol	<i>Penicillium aurantiogriseum</i>	2264		1875
	<i>Penicillium brevicompactum</i>	3825		3720
Ergotamine	<i>Claviceps purpurea</i>	714	(U.S. Pat. 3,276,972)	1059
Erygrisin	<i>Streptomyces erythrogriseus</i>	40116		
Erythroglauцин	<i>Talaromyces stipitatus</i>	2425		
Erythromycin A	<i>Aeromicrobium erythreum</i>	8599		
Erythromycin complex (A, B, C)	<i>Saccharopolyspora erythraea</i>	40517		
alpha-Esterase	<i>Mycobacterium terrae</i>	43227		
β-Esterase	<i>Mycobacterium terrae</i>	43227		
Estradiol	<i>Cunninghamella blakesleeana</i>	1906		
	<i>Cunninghamella echinulata</i>	1905		
	<i>Phanerochaete chrysosporium</i>	1556		
	<i>Thamnostylum piriforme</i>	2037		
Etamycin	<i>Streptomyces daghestanicus</i>	40149		
	<i>Streptomyces griseoviridis</i>	40229		
	<i>Streptomyces</i> sp.	40768		
Ethanol	<i>Clostridium beijerinckii</i>	1739		
	<i>Clostridium saccharobutylicum</i>	13864		
	<i>Clostridium thermocellum</i>	1313		
	<i>Clostridium thermocellum</i>	2360		
	<i>Clostridium thermocellum</i>	4150		
	<i>Thermoanaerobacter brockii</i> subsp. <i>brockii</i>	1457		2194, 2414, 2416

	<i>Thermoanaerobacter brockii</i> subsp. <i>finnii</i>	3389	(thermophilic)	2875
	<i>Thermoanaerobacter ethanolicus</i>	2246	(U.S. Pats. 4,292,406; 4,292,407)	2720, 2721
	<i>Thermoanaerobacter ethanolicus</i>	2355		2193, 2194
	<i>Thermoanaerobacter thermohydrosulfuricus</i>	2247		2518
from D-xylose	<i>Pachysolen tannophilus</i>	70352		3750
from lactose	<i>Kluyveromyces marxianus</i>	5418		
	<i>Zymomonas mobilis</i> subsp. <i>mobilis</i>			
Ethanolamine ammonia-lyase	<i>Clostridium</i> sp.	1975		2159, 2160, 2161, 2162
Ethylene	<i>Penicillium digitatum</i>	2748		2641
	<i>Penicillium digitatum</i>	2750		2634
	<i>Saccharomyces cerevisiae</i>	4267		3744
1-N-Ethylsomicin	<i>Micromonospora</i> sp.	1044	(German Pat. 24 62 485)	1832
Eulicin	<i>Streptomyces parvus</i>	40829		
Eurocidin	<i>Streptomyces eurocidicus</i>	40051		534
	<i>Streptomyces eurocidicus</i>	40604		
Everninomicins	<i>Micromonospora carbonacea</i>	43168		5165
	<i>Micromonospora carbonacea</i>	43815	(U.S. Pat. 3,499,078)	4459
Extradiol dioxygenases	<i>Janibacter terrae</i>	11214		9755
FAD				
Farmers's lung disease antigen	<i>Saccharopolyspora rectivirgula</i>	43113		
Ferredoxin	<i>Clostridium pasteurianum</i>	525		
Ferrimycin	<i>Streptomyces griseoflavus</i>	40698		741
	<i>Streptomyces lavendulae</i> subsp. <i>lavendulae</i>	40713		741
Ferrimycins A1 and A2 (pilosomycins A)	<i>Streptomyces galilaeus</i>	40481		

Ferrioxamine A-G (piloquinone)	<i>Streptomyces pilosus</i>	40714		
	<i>Streptomyces polychromogenes</i>	40720		
Ferrioxamine E	<i>Streptomyces flocculus</i>	40327		
	<i>Streptomyces</i> sp.	43124		
Ferritin	<i>Phycomyces blakesleeanus</i>	1359		3656
Ferroverdin	<i>Streptomyces flaveolus</i>	40719		
Fervenulin	<i>Streptomyces hiroshimensis</i>	40086		
	<i>Streptomyces</i> sp.	40848		
FI serum	<i>Lactobacillus rhamnosus</i>	20023		482
Filipin	<i>Streptomyces filipinensis</i>	40112		
Flavensomycin	<i>Streptomyces cavourensis</i> subsp. <i>cavourensis</i>	40300		
Flavin nucleotides, radioactive	<i>Clostridium kluyveri</i>	555		
Flavin-adenine dinucleotide	<i>Brevibacterium linens</i>	20426	(U.S. Pat. 3,647,627)	982
	<i>Corynebacterium ammoniagenes</i>	20305	(U.S. Pat. 3,647,627)	982
	<i>Rhodococcus erythropolis</i>	311		982
	<i>Sphingomonas paucimobilis</i>	30198		
Flavodoxin	<i>Clostridium pasteurianum</i>	525		
Flavofungin	<i>Streptomyces flavofungini</i>	40366		
	<i>Streptomyces flavogriseus</i>	40323		
Flavomycin				
Flexirubin	<i>Flavobacterium johnsoniae</i>	425		
	<i>Flexibacter filiformis</i>	527		668, 1043
Fluoracetic acid	<i>Streptomyces</i> sp.	46488		4420
Fluorothreonine	<i>Streptomyces</i> sp.	46488		4420
Folimycin	<i>Streptomyces neyagawaensis</i>	40588		
Fonsecin	<i>Aspergillus niger</i>	872		1232

Formaldehyde dehydrogenase	<i>Pseudomonas putida</i>	1991		1841
Formamicin	<i>Saccharothrix tangerinus</i>	44720		7836
Formate dehydrogenase	<i>Clostridium formicaceticum</i>	92		525, 1944
	<i>Methanobacterium formicicum</i>	2639		2541, 2542
	<i>Methanococcus vanniellii</i>	1224	(selenium dependent)	1697
	<i>Moorella thermoacetica</i>	521		2187
Formyltetrahydrofolate synthase	<i>Moorella thermoacetica</i>	521		955
Fortimicin B	<i>Micromonospora olivasterospora</i>	43868	(U.S. Pat. 3,931,400)	4576
Fradicin	<i>Streptomyces fradiae</i>	40063		558, 559
	<i>Streptomyces fradiae</i>	46372		4734
	<i>Streptomyces purpureus</i>	43360	(U.S. Pat. 3,650,904)	
Fragilomycin complex	<i>Streptosporangium fragile</i>	43847	(U.S. Pat. 4,293,546)	
Fumaric acid	<i>Rhizopus oryzae</i>	905		1208
	<i>Rhizopus oryzae</i>	5772		1208
Fumigacin	<i>Aspergillus fumigatus</i>	819		1237
Fumitremorgin B	<i>Penicillium simplicissimum</i>	1097		1220
Fungichromin	<i>Streptomyces cinnamoneus</i>	40005		
	<i>Streptomyces</i> sp.	40848		
Fungicidin	<i>Streptomyces albulus</i>	40492		
	<i>Streptomyces noursei</i>	40635		6464
	<i>Streptomyces</i> sp.	40020		
Funginon	<i>Aspergillus clavatus</i>	817	(U.S. Pat. 3,361,629)	3600
Fusidic acid	<i>Calcarisporium arbuscula</i>	3115		2748
β-Galactosidase	<i>Bacillus</i> sp.	1687	(Pat. DE 3000598A1)	4572
	<i>Bacillus</i> sp.	1688	(Pat. DE 3000598A1)	4572
	<i>Bacillus</i> sp.	1689	(Pat. DE	

			3000598A1)	
	<i>Escherichia coli</i>	2670	activated by specific antibodies (2624): inactive β -galactosidase can be activated by antibodies against wild-type β -galactosidase	2624
	<i>Kluyveromyces marxianus</i>	5418		
	<i>Kluyveromyces marxianus</i>	5420		
	<i>Sulfolobus solfataricus</i>	5833		4148
Galactosidase-permease	<i>Escherichia coli</i>	1328		1544
A-Galbonolid	<i>Streptomyces galbus</i>	3412	Germ.Pat.: P36 32 168.0	
B-Galbonolid	<i>Streptomyces galbus</i>	3412	Germ.Pat.: P36 32 168.0	
Gancidin-complex (components A and W)	<i>Streptomyces gancidicus</i>	40935		
Gardimycin	<i>Actinoplanes</i> sp.	43865	(U.S. Pat. 4,022,884)	4726
Geldanamycin	<i>Streptomyces violaceusniger</i>	40699		
Gentamycin	<i>Micromonospora echinospora</i>	43036		
	<i>Micromonospora echinospora</i>	43141		
	<i>Micromonospora echinospora</i>	43816		4460
	<i>Micromonospora pallida</i>	43817		4460
Gentisate 1,2-dioxygenase	<i>Sphingomonas</i> sp.	12401		7267
Geomycin	<i>Streptomyces xanthophaeus</i>	40134		
Gibberellic acid	<i>Fusarium fujikuroi</i>	893		1004, 1207
Gladiolic acid	<i>Penicillium gladioli</i>	2436		2489
Glebomycin	<i>Streptomyces bluensis</i>	40564		
	<i>Streptomyces hygrosopicus</i> subsp. <i>glebosus</i>	40823	(U.S. Pat. 3,142,671)	
Glidobactin complex	<i>Polyangium</i> sp.	7029	(U.S. Pat.	4996, 4997

			4,692,510)	
Gliotoxin	<i>Aspergillus fumigatus</i>	819		1237
Glucan	<i>Monilinia fructigena</i>	2677	(extracellular)	2633
	<i>Schizosaccharomyces pombe</i> var. <i>pombe</i>	2791		
Glucanase	<i>Disporotrichum dimorphosporum</i>	8230		5283
β-1,4-Glucanase	<i>Gloeophyllum trabeum</i>	1398		1131
	<i>Lysobacter enzymogenes</i> subsp. <i>enzymogenes</i>	1895		1461
β-1,3-Glucanase	<i>Paenibacillus glucanolyticus</i>	5162		4502
β-1,4-Glucanase	<i>Paenibacillus glucanolyticus</i>	5162		4502
β-1,6-Glucanase	<i>Paenibacillus glucanolyticus</i>	5162		4502
β-1,3-Glucanase	<i>Paenibacillus glucanolyticus</i>	5188		4502
β-1,4-Glucanase	<i>Paenibacillus glucanolyticus</i>	5188		4502
β-1,6-Glucanase	<i>Paenibacillus glucanolyticus</i>	5188		4502
	<i>Penicillium ochrochloron</i>	1945		1191
Glucanases	<i>Bacillus circulans</i>	596		91, 691, 692, 718, 719
Glucoamylase	<i>Acremonium zonatum</i>	1553		1148
	<i>Clostridium</i> sp.	2335	(thermostable) (U.S. Pat. 4,536,477)	
β-Gluconases				
	<i>Bacillus amyloliquefaciens</i>			
	<i>Bacillus circulans</i>			
	<i>Bacillus licheniformis</i>			
	<i>Bacillus subtilis</i>			
	<i>Flavobacterium johnsoniae</i>	425		985
2-keto-3-D-Gluconate	<i>Clostridium pasteurianum</i>	525		
D-Gluconate dehydratase	<i>Clostridium pasteurianum</i>	525		2111, 2112

Gluconic acid	<i>Aspergillus niger</i>	821		3604
	<i>Aspergillus niger</i>	872		1230
	<i>Aspergillus niger</i>	2466		2645
Glucono-delta-lactone	<i>Aspergillus niger</i>	2466		2645
Glucose dehydrogenase	<i>Sulfolobus solfataricus</i>	5833		4148
Glucose isomerase	<i>Sphingomonas paucimobilis</i>	30198	(U.S. Pat. 3,956,066)	4702
exo-oligo-1,6-Glucosidase	<i>Geobacillus thermoglucosidasius</i>	2542	responsible for glucopyranoside/p-nitrophenyl-alpha-D hydrolysis (extremely thermostable)	2591
	<i>Geobacillus thermoglucosidasius</i>	2543	(extremely thermostable)	2591
exo-1,3-β-Glucosidase	<i>Disporotrichum dimorphosporum</i>	8230		
aryl-β-Glucosidase	<i>Heterobasidion annosum</i>	2728		2630
alpha-Glucosidase	<i>Mucor</i> sp.	1222		1262
β-Glucosidase	<i>Myceliophthora thermophila</i>	1799		3678
1,4-β-Glucosidase	<i>Phanerochaete chrysosporium</i>	1547		3665
alpha-Glucosidase	<i>Thermoanaerobacterium thermosulfurigenes</i>	3896		3097
alpha-Glucuronidase	<i>Pedobacter heparinus</i>	2366		2350, 2352, 2354
Glutamate decarboxylase	<i>Escherichia coli</i>	301		983
Glutamate dehydrogenase	<i>Clostridium subterminale</i>	2636		2558
Glutamate synthase	<i>Thiobacillus thioparus</i>	505		1650
L-Glutamic acid	<i>Ancylobacter</i> sp.	1106	(U.S. Pat. 3,663,370)	1538
	<i>Arthrobacter protophormiae</i>	20644	(U.S. Pat. 3,533,914)	2843
	<i>Comamonas testosteroni</i>	1455	(U.S. Pat. 3,563,857)	
	<i>Corynebacterium callunae</i>	20147	(U.S. Pat. 3,087,863)	1016
	<i>Corynebacterium glutamicum</i>	1412	(U.S. Pats. 3,117,915; 3,128,237;	2222, 2223, 2224, 2225, 2226

			3,096,252; 3,136,702; 3,212,994)	
	<i>Corynebacterium glutamicum</i>	20137		
	<i>Corynebacterium glutamicum</i>	20156	(U.S. Pat. 3,338,793)	1017
	<i>Corynebacterium glutamicum</i>	20163		
	<i>Corynebacterium glutamicum</i>	20297		
	<i>Corynebacterium glutamicum</i>	20300	(U.S. Pats. 3,002,889; 3,003,925)	1018, 1019
	<i>Corynebacterium glutamicum</i>	20301	(U.S. Pat. 3,120,472)	1020
	<i>Corynebacterium glutamicum</i>	20411	(U.S. Pat. 3,096,252)	2224
	<i>Corynebacterium glutamicum</i>	20412	(U.S. Pats. 3,128,237; 3,136,702; Can. Pat. 634,377)	2223, 2225, 3390
	<i>Corynebacterium glutamicum</i>	20598	(U.S. Pat. 3,117,915)	2222
	<i>Methanomonas methylovora</i> subsp. <i>thiaminophila</i>	46234	(U.S. Pat. 3,663,370)	
	<i>Methylobacillus glycogenes</i>	1758	(U.S. Pat. 3,663,370)	2451
	<i>Methylobacillus glycogenes</i>	1760	(U.S. Pat. 3,663,370)	2451
	<i>Rhodococcus erythropolis</i>	311	(U.S. Pats. 3,764,473; 3,511,752)	1522, 2219
	<i>Rhodococcus erythropolis</i>	312	(U.S. Pat. 3,764,473)	1522
	<i>Rhodococcus</i> sp.	20165	(U.S. Pat. 3,642,576)	1013
Glutamine synthetase	<i>Escherichia coli</i>	1116		1542
Glycerol	<i>Bacillus licheniformis</i>	8785		4582
Glycerol dehydrase	<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i>	4799		3508, 3509
Glycerol dehydrogenases	<i>Schizosaccharomyces pombe</i> var. <i>pombe</i>	70576		3757

Glycine reductase	<i>Clostridium sticklandii</i>	519		2178, 2179
Glycollate	<i>Cupriavidus necator</i>	541		
Gougerotin	<i>Streptomyces gougerotii</i>	40324		
Gramicidin	<i>Aneurinibacillus migulanus</i>	2895		2790
	<i>Brevibacillus parabrevis</i>	362		40, 41, 943, 944
Granaticin A	<i>Streptomyces</i> sp.	40694		5213
	<i>Streptomyces violaceoruber</i>	40701		
Granaticin B	<i>Streptomyces violaceoruber</i>	40701		
Granulose phosphorylase	<i>Clostridium pasteurianum</i>	525		2114
Grasseriomycin	<i>Streptomyces lavendulae</i> subsp. <i>grasserius</i>	40385		
Grisein (albomycin-like antibiotic)	<i>Streptomyces griseinus</i>	40047		
	<i>Streptomyces griseoloalbus</i>	40468		
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40693		
Griseofulvin	<i>Penicillium griseofulvum</i>	896		1252
	<i>Penicillium janczewskii</i>	847		1254
Griseoluteins A, B	<i>Streptomyces griseoluteus</i>	40392		
Griseoviridin	<i>Streptomyces griseoviridis</i>	40229		
Guanosine-5'-monophosphate	<i>Arthrobacter</i> sp.	20125	(U.S. Pat. 3,249,511)	3388
Haemolysins	<i>Clostridium perfringens</i>	756		2120
Halomycin	<i>Micromonospora halophytica</i>	43171		
Helixin	<i>Streptomyces antimycoticus</i>	40284		
Helvoric acid	<i>Streptomyces</i> sp.	40849		2255
Heparinase	<i>Pedobacter heparinus</i>	2366		2350, 2351, 2352, 2356
Heparinitase	<i>Pedobacter heparinus</i>	2366		2350, 2351, 2352

Heptaene	<i>Streptomyces coelicolor</i>	40233		
	<i>Streptomyces abikoensis</i>	40105		
Heptaene 51-10	<i>Streptomyces</i> sp.	40850		
Herbicolin A	<i>Pantoea agglomerans</i>	1619		
Histamine	<i>Lactobacillus buchneri</i>	5987		
Histidine decarboxylase	<i>Escherichia coli</i>	301		983
Holomycin	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40707		
Hortesin	<i>Streptomyces</i> sp.	40491		
Host specific toxin	<i>Alternaria alternata</i>	1102		1127
Humic acid like compounds	<i>Pisolithus arhizus</i>	3245		2876
Humicolin	<i>Aspergillus asperescens</i>	871		
Humidin	<i>Streptomyces humidus</i>	40263		
Hydantoinase	<i>Pseudomonas putida</i>	84		4943
Hydrocinnamic acid	<i>Clostridium glycolicum</i>	13561		
Hydrocitrone	<i>Aspergillus carneus</i>	1518		
Hydrogen	<i>Blastochloris viridis</i>			
	<i>Phaeosporillum fulvum</i>			
	<i>Rhodobacter capsulatus</i>	152		
	<i>Rhodobacter capsulatus</i>	155		
	<i>Rhodobacter capsulatus</i>	938		
	<i>Rhodobacter sphaeroides</i>	158		
	<i>Rhodobacter sphaeroides</i>	159		
	<i>Rhodobacter sphaeroides</i>	5864		
	<i>Rhodobium marinum</i>	2698		
	<i>Rhodobium marinum</i>	2780		
	<i>Rhodomicrobium vannielii</i>	162		
	<i>Rhodomicrobium vannielii</i>	166		
	<i>Rhodomicrobium vannielii</i>	725		
	<i>Rhodoblastus acidophilus</i>	137		
	<i>Rhodoblastus acidophilus</i>	142		
	<i>Rhodopseudomonas palustris</i>			

	<i>Rhodospirillum rubrum</i>			
	<i>Rhodovulum sulfidophilum</i>	1374		
	<i>Rhodovulum sulfidophilum</i>	2351		
Hydrogen cyanide (HCN)	Snow mold basidiomycete	1847		1179
Hydrogen sulfide	<i>Budvicia aquatica</i>	5075		
Hydrogenase	<i>Acetobacterium woodii</i>	1030		1425
	<i>Clostridium pasteurianum</i>	525		2110
	<i>Escherichia coli</i>	1116		862
	<i>Pseudomonas</i> sp.	2583		2727
Hydrolytic enzymes	<i>Alternaria solani</i>	2954		
Hydroxy steroids	<i>Mortierella zonata</i>	842	(U.S. Pat. 2,962,423)	3613
17 alpha-Hydroxy-11-oxygenated-20-keto steroids	<i>Nocardia veterana</i>	43300		2884
tau-Hydroxybutyrate dehydrogenase	<i>Clostridium</i> sp.	2634		2556
β-Hydroxybutyryl-CoA dehydrogenase	<i>Clostridium kluyveri</i>	555		959
Hydroxycinnamic acid ester hydrolase	<i>Aspergillus japonicus</i>	2345		3702
Hydroxyethylflavin	<i>Eubacterium fissicatena</i>	3598		3260
Hydroxyglutin	<i>Streptomyces</i> sp.	40866		
Hydroxylated biphenyl compounds	<i>Absidia pseudocylindrospora</i>	2254	(U.S. Pat. 4,153,509)	3699
2-substituted-6,9-β-D-ribofuranoside-5'-phosphoric-Hydroxypurine acid esters	<i>Corynebacterium ammoniagenes</i>	20305	(U.S. Pat. 3,560,342)	3357
12alpha-Hydroxysteroid dehydrogenase	<i>Clostridium</i> sp.	4029		3066
alpha-Hydroxysteroid dehydrogenase	<i>Comamonas testosteroni</i>	38		177
β-Hydroxysteroid dehydrogenase	<i>Comamonas testosteroni</i>	38		177
20-β-Hydroxysteroid dehydrogenase	<i>Streptomyces hydrogenans</i>	40586		
Hydroxystreptomycin	<i>Streptomyces</i>	40716		

	<i>glaucescens</i>			
	<i>Streptomyces griseocarneus</i>	40004		
	<i>Streptomyces rimosus</i> subsp. <i>rimosus</i>	43187	(Brit. Pat. 955,762)	2210
	<i>Streptomyces subrutilus</i>	40445		
5-Hydroxyvalerate-CoA transferase	<i>Clostridium viride</i>	6836		4231
5-Hydroxyvaleryl-CoA dehydratase	<i>Clostridium viride</i>	6836		4232
Hygromycin	<i>Streptomyces hygroscopicus</i> subsp. <i>hygroscopicus</i>	40578		
	<i>Streptomyces noboritoensis</i>	40223		
	<i>Streptomyces</i> sp.	40475	(U.S. Pat. 3,100,176)	
Hygromycin A	<i>Streptomyces crystallinus</i>	40945		
Hygroscopin A, B, C	<i>Streptomyces hygroscopicus</i> subsp. <i>hygroscopicus</i>	40632		
Iakirine I, II, III	<i>Streptomyces iakyrus</i>	40482		
Iminodiacetate dehydrogenase	<i>Aminobacter aminovorans</i>	6449		4927
	<i>Aminobacter aminovorans</i>	6451		4927
	<i>Aminobacter aminovorans</i>	6463		4927
	<i>Aminobacter aminovorans</i>	6464		4927
	<i>Aminobacter aminovorans</i>	6465		4927
	<i>Aminobacter aminovorans</i>	6466		4927
	<i>Chelatococcus asaccharovorans</i>	6462		4927
	unclassified bacterium	6452		4927
Imipramine	<i>Beauveria bassiana</i>	875		3617
	<i>Chaetomium cochliodes</i>	1909		3617
	<i>Cunninghamella blakesleeana</i>	1906		3617

	<i>Fennellia flavipes</i>	874		3617
Indigoidine	<i>Arthrobacter polychromogenes</i>	342		124
	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i>	340		124
	<i>Vogesella indigofera</i>	3303		2936, 5213
Indochrome	<i>Arthrobacter polychromogenes</i>	342		973
Indol alkaloids	<i>Panaeolus cyanescens</i>	1767		1247
Inhibitors for glycoside hydrolases	<i>Bacillus amyloliquefaciens</i>	7	(Brit. Pat. 155,409)	2277
	<i>Bacillus amyloliquefaciens</i>	1060	(Brit. Pat. 155,409)	2277
	<i>Bacillus amyloliquefaciens</i>	1061	(Brit. Pat. 155,409)	2277
	<i>Bacillus amyloliquefaciens</i>	1062	(Brit. Pat. 155,409)	2277
	<i>Bacillus amyloliquefaciens</i>	1063	(Brit. Pat. 155,409)	2277
	<i>Bacillus amyloliquefaciens</i>	1064	(Brit. Pat. 155,409)	2277
	<i>Bacillus amyloliquefaciens</i>	1065	(Brit. Pat. 155,409)	2277
	<i>Bacillus amyloliquefaciens</i>	1066	(Brit. Pat. 155,409)	2277
	<i>Bacillus amyloliquefaciens</i>	1067	(Brit. Pat. 155,409)	2277
	<i>Bacillus atrophaeus</i>	675	(Brit. Pat. 155,409)	2277
	<i>Bacillus coagulans</i>	1	(Brit. Pat. 155,409)	2277
	<i>Bacillus</i> sp.	479	(Brit. Pat. 155,409)	2277
	<i>Paenibacillus polymyxa</i>	36	(Brit. Pat. 155,409)	2277
	<i>Paenibacillus polymyxa</i>	292	(Brit. Pat. 155,409)	2277
	<i>Paenibacillus polymyxa</i>	356	(Brit. Pat. 155,409)	2277
	<i>Paenibacillus polymyxa</i>	365	(Brit. Pat. 155,409)	2277

	<i>Paenibacillus polymyxa</i>	372	(Brit. Pat. 155,409)	2277
5'-Inosinic acid	<i>Corynebacterium ammoniagenes</i>	20305	(U.S. Pat. 3,268,415)	3360
	<i>Corynebacterium ammoniagenes</i>	20306	(U.S. Pat. 3,268,415)	3360
	<i>Pantoea ananatis</i>	30071	(U.S. Pat. 3,150,058)	1032
	<i>Pantoea dispersa</i>	30072	(U.S. Pat. 3,150,058)	1032
	<i>Pantoea dispersa</i>	30073	(U.S. Pat. 3,150,058)	1032
Invertase	<i>Clostridium pasteurianum</i>	525		2115
	<i>Rhizopus oryzae</i>	5772		
Iodin	<i>Microbispora rosea</i> subsp. <i>aerata</i>	43176		511
Isocitrate lyase	<i>Bacillus</i> sp.	2349		2286
	<i>Vogesella indigofera</i>	3303		2927
Isofumigaclavine	<i>Penicillium roqueforti</i>	1079		2063
	<i>Penicillium roqueforti</i>	1080		2063
L-Isoleucine	<i>Arthrobacter sulfureus</i>	20645	(U.S. Pat. 3,231,478)	2844
	<i>Corynebacterium ammoniagenes</i>	20305	(U.S. Pat. 3,231,478)	2844
	<i>Corynebacterium ammoniagenes</i>	20306	(U.S. Pat. 3,262,861)	1626
	<i>Hafnia alvei</i>	30097	(U.S. Pat. 3,262,861)	
	<i>Streptomyces flaveolus</i>	40061		
Isolongifolene, hydroxylation of	<i>Corynespora cassicola</i>	62474		
Isorhodomyacin A	<i>Streptomyces purpurascens</i>	40310		
Itaconic acid	<i>Aspergillus terreus</i>	826		1244
	<i>Aspergillus terreus</i>	5770	(U.S. Pat. 2,462,981)	4676
Juvenimycin	<i>Micromonospora chalcea</i>	43895		4542
KA-6606	<i>Saccharopolyspora hirsuta</i> subsp. <i>kobensis</i>	44795		9139

Kalafungin	<i>Streptomyces tanashiensis</i>	731	(U.S. Pat. 3,300,382)	417, 448
Kanamycin A, B, C	<i>Streptomyces kanamyceticus</i>	40500		
Karnatakin	<i>Streptomyces</i> sp.	40345		
Kasugamycin	<i>Streptomyces kasugaensis</i>	40819		6174
Keratan sulfate-endogalactosidase	<i>Microbacterium keratanolyticum</i>	8606		4974
2-Keto-4-hydroxy valeric acid	<i>Phenyllobacterium immobile</i>	1986		2950
2-Keto-L-gulonic acid	<i>Gluconacetobacter xylinus</i>	46604	(U.S. Pat. 3,234,105)	4580
	<i>Gluconobacter</i> sp.	3504	(U.S. Pat. 3,234,105)	2943
	<i>Pseudomonas chlororaphis</i>	50083	(U.S. Pat. 3,922,194)	2375
20-β-Keto-reductase	<i>Streptomyces hydrogenans</i>	40586		
Ketogluconic acid	<i>Pseudomonas putida</i>	1693		
alpha-Ketoglutaric acid	<i>Kluyvera ascorbata</i>	30109		268
	<i>Kluyvera cryocrescens</i>	30113		268
	<i>Rhodococcus</i> sp.	20165	(U.S. Pat. 3,642,576)	1013
3-Ketolactose	<i>Rhizobium radiobacter</i>	30150		
Ketomycin	<i>Streptomyces antibioticus</i>	40725		806
Ketoses	<i>Streptomyces hydrogenans</i>	40586		
β-Ketothiolase	<i>Clostridium pasteurianum</i>	525		2113
Kidamycin	<i>Streptomyces</i> sp.	40902		
Kirromycin	<i>Streptomyces collinus</i>	40733		
Kobenomycin	<i>Streptomyces</i> sp.	41497		6589
Kojic acid	<i>Aspergillus flavus</i>	818		1235
Lac repressor	<i>Escherichia coli</i>	3413		
Laccase	<i>Heterobasidion annosum</i>	2728		2629
	<i>Hypholoma fasciculare</i>	1010		3645
	<i>Pleurotus cystidiosus</i>	1019		3645
	<i>Pleurotus ostreatus</i>	1020		3645

	<i>Spongipellis litschaueri</i>	1017		3645
β-Lactam antibiotics (demethoxymonobactams)	<i>Flexibacter</i> sp.	3098		2774
β-Lactamase	<i>Comamonas testosteroni</i>	50244		856
	<i>Erwinia amylovora</i>	30165		856
	<i>Escherichia coli</i>	5923		
	<i>Escherichia coli</i>	46345		
	<i>Vibrio proteolyticus</i>	30189		856
β-Lactamase PSE4	<i>Pseudomonas aeruginosa</i>	46317		
Lactase	<i>Kluyveromyces marxianus</i>	5418		
Lactate dehydrogenase	<i>Phycomyces blakesleeianus</i>	1359		3655
L(+)-Lactic acid	<i>Bacillus coagulans</i>	1		3394
	<i>Bacillus coagulans</i>	2308		3394
D(-)-Lactic acid	<i>Bacillus coagulans</i>	2311		
L(+)-Lactic acid	<i>Bacillus coagulans</i>	2311		3394
	<i>Bacillus coagulans</i>	2312		3394
DL-Lactic acid	<i>Bacillus coagulans</i>	2314		
L(+)-Lactic acid	<i>Bacillus coagulans</i>	2314		3394
	<i>Bacillus coagulans</i>	2350		3394
	<i>Bacillus coagulans</i>	2356		3394
	<i>Bacillus coagulans</i>	2383		3394
	<i>Bacillus coagulans</i>	2384		3394
	<i>Bacillus coagulans</i>	2385		3394
D(-)-Lactic acid	<i>Bacillus laevolacticus</i>	442		62
	<i>Bacillus laevolacticus</i>	444		62
	<i>Bacillus laevolacticus</i>	2310		62
	<i>Bacillus laevolacticus</i>	2316		62
	<i>Bacillus laevolacticus</i>	2317		62
	<i>Bacillus laevolacticus</i>	2318		62
DL-Lactic acid	<i>Bacillus</i> sp.	445		62
	<i>Bacillus</i> sp.	2309		62

Lactic acid	<i>Rhizopus oryzae</i>	2199		
D(-)-Lactic acid dehydrogenase	<i>Leuconostoc pseudomesenteroides</i>	20193		
Lactones	<i>Fennellia flavipes</i>	874		
Lagosin (pentaene)	<i>Streptomyces</i> sp.	40240		
Lankacidin	<i>Streptomyces violaceusniger</i>	40710		
Lankamycin	<i>Streptomyces violaceusniger</i>	40710		
Lankamycin	<i>Streptomyces violaceusniger</i>	40710		
Lapachol, conversion	<i>Cunninghamella echinulata</i>	1905		
L-Leucine dehydrogenase	<i>Bacillus cereus</i>	626		4622, 8124
	<i>Bacillus</i> sp.	405		4622
Leucomycin-derivatives	<i>Thamnostylum piriforme</i>	3541	(U.S. Pat. 3,784,447)	3713
Leulysin	<i>Saccharomyces cerevisiae</i>	4267		3745
Levan	<i>Microbacterium laevaniformans</i>	20140		387, 388
Libanomycin	<i>Streptomyces libani</i> subsp. <i>libani</i>	40555		
Ligninase	<i>Phanerochaete chrysosporium</i>	1556		3669
	<i>Phanerochaete chrysosporium</i>	6909		3669
Limocrocin	<i>Streptomyces limosus</i>	40131		
Lincomycin	<i>Streptomyces lincolnensis</i>	40355		
	<i>Streptomyces pseudogriseolus</i>	921	(U.S. Pat. 3,726,766)	1821
	<i>Streptomyces</i> sp.	920	(U.S. Pats. 3,833,475; 3,697,380)	1819, 1820
	<i>Streptomyces</i> sp.	926	(U.S. Pat. 3,833,475)	1819
	<i>Streptomyces</i> sp.	927	(U.S. Pat. 3,833,475)	1819
	<i>Streptomyces</i> sp.	928	(U.S. Pat. 3,833,475)	1819

	<i>Streptomyces</i> sp.	931	(Belgian Pat. 76,237)	1830
	<i>Streptomyces variabilis</i>	923	(U.S. Pat. 3,812,014)	1808
Lincomycin sulfoxides	<i>Aspergillus niger</i>	872	by oxidation (U.S. Pat. 3,616,244)	3624
	<i>Aspergillus niger</i>	2466	(U.S. Pat. 3,616,244)	3704
Lipase	<i>Candida cylindracea</i>	2031	(U.S. Pat. 3,189,529)	2453
	<i>Thermosyntropha lipolytica</i>	11003		6626
Lipiarmycin	<i>Actinoplanes deccanensis</i>	43806	(U.S. Pat. 3,978,211)	2831, 2882
Lipids	<i>Candida</i> sp.	1247		2261, 2296
Lipoamide dehydrogenase	<i>Malbranchea cinnamomea</i>	1904		1185
alpha-Lipomycin	<i>Streptomyces tendae</i>	40729		
β-Lipomycin	<i>Streptomyces tendae</i>	40729		
Lipoxamycin	<i>Streptomyces virginiae</i>	916	(U.S. Pat. 3,629,402)	1809, 1810, 1811
Litmocidin	<i>Streptomyces litmocidini</i>	40164		
LL-B01208	<i>Streptomyces stramineus</i>	41783		
LL-DAP	<i>Streptomyces yanii</i>	43887		
Lomofungin	<i>Streptomyces lomondensis</i>	41428		4758
Lucensomycin (a tetraene)	<i>Streptomyces lucensis</i>	40317		
Luridin	<i>Streptomyces luridus</i>	40081		578
Luteomycin	<i>Streptomyces tanashiensis</i>	40195		
Lydimycin	<i>Streptomyces lydicus</i>	40461		
Lysergic acid derivatives	<i>Claviceps paspali</i>	833	(U.S. Pat. 3,038,840)	3610
	<i>Claviceps paspali</i>	883	(U.S. Pat. 3,038,840)	3610
	<i>Claviceps paspali</i>	884	(U.S. Pat. 3,038,840)	3610
	<i>Claviceps paspali</i>	885	(U.S. Pat. 3,038,840)	3610

L-Lysine	<i>Brevibacterium linens</i>	20158		
	<i>Gordonia rubripertincta</i>	46039	(U.S. Pat. 3,905,867)	
β-Lysine	<i>Saccharothrix australiensis</i>	43800	(U.S. Pat. 4,234,717)	2899
L-Lysine-epsilon-transaminase	<i>Flavobacterium</i> sp.	2408		2718
L-Lysine-alpha-ketoglutarate aminotransferase	<i>Flavobacterium</i> sp.	2408		2716, 2717
Lysostaphin	<i>Staphylococcus simulans</i>	20723		3342
Lytic enzymes	<i>Bacillus circulans</i>	596		
	<i>Brevibacterium linens</i>	20158		
	<i>Cellulosimicrobium cellulans</i>	20424		
	<i>Flavobacterium johnsoniae</i>	425		
	<i>Lysobacter enzymogenes</i> subsp. <i>enzymogenes</i>	1895		
	<i>Meiothermus ruber</i>	1279		2247
	<i>Streptomyces globisporus</i> subsp. <i>globisporus</i>	40991		
Macrocin	<i>Streptomyces fradiae</i>	41757		6390
Macrolide antibiotic	<i>Streptomyces showdoensis</i>	40504		
Macrotetrolide	<i>Streptomyces griseoflavus</i>	40717		
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40695		
Madumycin	<i>Lechevalieria flava</i>	43885		4481
Madumycin I, II	<i>Couchioplanes caeruleus</i> subsp. <i>azureus</i>	43900	(U.S. Pat. 4,038,383)	
Magnamycin	<i>Streptomyces eurocidicus</i>	40051		534
	<i>Streptomyces</i> sp.	40096		
	<i>Streptomyces</i> sp.	40227		
	<i>Streptomyces tendae</i>	40101		
Magnamycin-derivatives	<i>Thamnostylum piriforme</i>	3541	(U.S. Pat. 3,784,447)	3713
Magnetosomes	<i>Desulfovibrio magneticus</i>	13731		
Malic acid	<i>Aspergillus parasiticus</i>	5771	(U.S. Pat.	4675

			3,063,910)	
(D+)-Malic enzyme	<i>Pseudomonas fluorescens</i>	2764		
Malic enzyme	<i>Sulfolobus solfataricus</i>	5833		4148
Maltose phosphorylase	<i>Lactobacillus brevis</i>	20556		1961
Mannosidohydroxystreptomycin	<i>Streptomyces rimosus</i> subsp. <i>rimosus</i>	43187	(Brit. Pat. 955,762)	2210
Manumycin	<i>Streptomyces parvulus</i>	40722		
Matamycin	<i>Streptomyces althioticus</i>	40092		
	<i>Streptomyces bellus</i>	40185		
Mating hormone	<i>Blakeslea trispora</i>	2387		2490
	<i>Blakeslea trispora</i>	2388		2490
	<i>Saccharomyces cerevisiae</i>	4266		3743
	<i>Saccharomyces cerevisiae</i>	4267		3743
	<i>Tremella mesenterica</i>	1558		1167
	<i>Tremella mesenterica</i>	1559		1167
Mating hormone tremerogen A-10	<i>Tremella mesenterica</i>	1557		1167
Mating hormone tremerogen A-13	<i>Tremella mesenterica</i>	1560		1167
Mediocidin	<i>Streptomyces</i> sp.	40021		
Megacidin	<i>Streptomyces lavendulae</i> subsp. <i>lavendulae</i>	40708		
Megalomycin	<i>Micromonospora</i> sp.	802		
	<i>Micromonospora</i> sp.	43892	(U. S. Pat. 3,632, 750)	
Melanomycin	<i>Streptomyces melanogenes</i>	40192		
Melanosporin	<i>Streptomyces melanosporofaciens</i>	40318		
Melrosporin	<i>Streptomyces hiroshimensis</i>	40905		
Methane				
Methanol dehydrogenase	<i>Hyphomicrobium denitrificans</i>	1869		1768
4-Methoxybenzoate O-demethylase	<i>Pseudomonas putida</i>	1868		1881, 1882

9-Methoxyellipticine conversion	<i>Cunninghamella echinulata</i>	1905		
Methyl sulfides	<i>Clostridium subterminale</i>	6970		4351
3-Methylorsellinic acid	<i>Aspergillus terreus</i>	826		
Micromonosporin	<i>Micromonospora</i> sp.	43295		
Micronomicin	<i>Micromonospora sagamiensis</i> subsp. <i>flava</i>	44887		9565
	<i>Micromonospora sagamiensis</i>	43912	(antibiotic XK62-2)	9565
	<i>Micromonospora sagamiensis</i> subsp. <i>sagamiensis</i>	44886		9565
	<i>Micromonospora sagamiensis</i> subsp. <i>nonreducans</i>	44885		9565, 9566
	<i>Micromonospora sagamiensis</i> subsp. <i>nonreducans</i>	44888		9567
Micropolysporin A and B	<i>Saccharomonospora caesia</i>	43044		
Minomycin	<i>Streptomyces</i> sp.	40031	(Japan. Pat. 19,750)	583
Miramycin	<i>Streptomyces mirabilis</i>	40553		
Misionin	<i>Streptomyces misionensis</i>	40306		
Mitomycins	<i>Streptomyces</i> sp.	40603		
Mocimycin				
Moenomycin	<i>Streptomyces ederensis</i>	40741	(U.S. Pat. 3,674,866)	
	<i>Streptomyces geysiriensis</i>	40742		
	<i>Streptomyces ghanaensis</i>	40746	(U.S. Pat. 3,674,866)	
Moenomycin complex	<i>Streptomyces bambergiensis</i>	40744	(U.S. Pat. 3,674,866)	
Moldicidin A	<i>Streptomyces griseofuscus</i>	40191		
Moldin	<i>Streptomyces phaeochromogenes</i>	40633		2229
Mollicellin	<i>Chaetomium mollicellum</i>	1585		1153
Monazomycin	<i>Streptomyces</i>	40896		6584

	<i>mashuensis</i>			
Moniliformin	<i>Fusarium oxysporum</i>	2018		
Monobactam SQ 28,332	<i>Flexibacter</i> sp.	3589		2934
Mosquito toxin	<i>Bacillus sphaericus</i>	1867		
Mutaminines	<i>Micromonospora</i> sp.	1044	(German Pat. 24 37 159)	1831
Mycelin	<i>Streptomyces roseoflavus</i>	40536		
Mycetin complex	<i>Streptomyces violaceus</i>	40082		
Mycolutein	<i>Streptomyces netropsis</i>	40846		
Mycomycetin	<i>Streptomyces arenae</i>	40293		
Mycophenolic acid	<i>Penicillium brevicompactum</i>	2215		1874
	<i>Penicillium brevicompactum</i>	3825		3718
Myxin	<i>Lysobacter antibioticus</i>	2044		1455, 1456, 1529
	<i>Lysobacter antibioticus</i>	2045		1455
NAD pyrophosphorylase	<i>Leuconostoc fructosum</i>	20349		919
NADP	<i>Corynebacterium ammoniagenes</i>	20305		
Nalgiolaxin	<i>Penicillium nalgioense</i>	897		1253
Nalgiovensin	<i>Penicillium nalgioense</i>	897		1253
Nancimycin	<i>Streptomyces aurantiacus</i>	40796		
Naphthocyclinone	<i>Streptomyces arenae</i>	40737		
Naphthomycin	<i>Streptomyces collinus</i>	40726		
Naphthomycin B	<i>Streptomyces tendae</i>	40732		
Naphthyridines, transformation	<i>Penicillium citreonigrum</i>	1178		
S-Naproxen	<i>Rhodococcus erythropolis</i>	9675	from racemic naproxen nitrile	5276
	<i>Rhodococcus erythropolis</i>	9685	from racemic naproxen nitrile	5276
Naramycin A, B	<i>Streptomyces</i> sp.	40508	(U.S. Pat. 3,074,855)	
Narangomycin	<i>Streptomyces lavenduligriseus</i>	40487		
Narbomycin	<i>Streptomyces</i>	40016		

	<i>narbonensis</i>			
Nebramycin	<i>Streptoalloteichus hindustanus</i>	44523		8194
	<i>Streptomyces</i> sp.	40477		
Neburalin	<i>Streptomyces yokosukanensis</i>	40224		
Negamycin	<i>Streptomyces purpeofuscus</i>	40283		
Neoantimycin	<i>Streptomyces orinoci</i>	40571		
Neoauerothin	<i>Streptomyces orinoci</i>	40571		
Neomycin	<i>Streptomyces albogriseolus</i>	40003		
	<i>Streptomyces fradiae</i>	40063		558, 559
	<i>Streptomyces fradiae</i>	40705		
	<i>Streptomyces fradiae</i>	46372		559
	<i>Streptomyces roseoflavus</i>	40536		
Neomycin E	<i>Streptomyces chrestomyceticus</i>	40545		
Neomycin F	<i>Streptomyces chrestomyceticus</i>	40545		
Netropsin	<i>Streptomyces ambofaciens</i>	40053		
	<i>Streptomyces netropsis</i>	40259		
	<i>Streptomyces parvulus</i>	40728		
	<i>Streptomyces</i> sp.	40384		
Niacin	<i>Saccharomyces cerevisiae</i>	70424		3753
phosphoribosyl-Nicotinamide transferase	<i>Leuconostoc fructosum</i>	20349		919
Nicotine blue	<i>Arthrobacter nicotinovorans</i>	420		7, 20
Niddamycin	<i>Streptomyces djakartensis</i>	40743		
Niddamycin derivatives	<i>Thamnostylum piriforme</i>	3541	(U.S. Pat. 3,784,447)	3713
Nidulin	<i>Emericella unguis</i>	827		1267
Nisin	<i>Lactococcus lactis</i> subsp. <i>lactis</i>	20729		
Nitric oxide	<i>Pseudomonas</i>	6195		6637

	<i>aeruginosa</i>			
Nitrilase	<i>Pseudomonas fluorescens</i>	11387		7942
	<i>Pseudomonas putida</i>	11388		7942
	<i>Pseudomonas</i> sp.	11389		
	<i>Pseudomonas</i> sp.	11390		7942
	<i>Variovorax</i> sp.	11402		7942
Nitrile hydratase	<i>Agrobacterium</i> sp.	11401		7942
	<i>Mycobacterium</i> sp.	11399		7942
	<i>Rhizobium radiobacter</i>	9674		7942
	<i>Rhodococcus erythropolis</i>	9675		5276, 7942
	<i>Rhodococcus erythropolis</i>	9685		5276
	<i>Rhodococcus erythropolis</i>	11397		7942
	<i>Rhodococcus</i> sp.	11398		7942
	<i>Rhodococcus</i> sp.	11511		
	unclassified bacterium	11396		7942
Nitrilotriacetate monooxygenase	<i>Aminobacter aminovorans</i>	6449		4927
	<i>Aminobacter aminovorans</i>	6451		4927
	<i>Aminobacter aminovorans</i>	6463		4927
	<i>Aminobacter aminovorans</i>	6464		4927
	<i>Aminobacter aminovorans</i>	6465		4927
	<i>Aminobacter aminovorans</i>	6466		4927
	<i>Chelatococcus asaccharovorans</i>	6462		4927
	unclassified bacterium	6452		4927
Nitrite reductase	<i>Sulfurospirillum deleyianum</i>	6946		4313
Nitrogenase				
Nitrosporin	<i>Streptomyces nitrosporeus</i>	40023		
Nocamycin	<i>Saccharothrix syringae</i>	43886		4577

Nocardicin A	<i>Actinosynnema mirum</i>	43827		4578
Nogalamycin	<i>Streptomyces nogalater</i>	40546		
Nonactin	<i>Streptomyces werraensis</i>	40745		
Nornidulin (ustin)	<i>Emericella unguis</i>	827		1267
Northienamycin	<i>Streptomyces</i> sp.	46488	(U.S. Pat. 4,247,640)	
L-delta-hydroxy-gamma-oxo-L-Norvaline	<i>Streptomyces</i> sp.	40791		
Notomycin	<i>Streptomyces rishiriensis</i>	40489		
Novenaminate	<i>Arthrobacter</i> sp.	917	(U.S. Pat. 3,652,536; U.S. Pat. 3,730,839)	1523, 1814
Novobiocin	<i>Streptomyces caeruleus</i>	40088		
	<i>Streptomyces caeruleus</i>	40292	(U.S. Pats. 3,049,534; 3,049,475; 3,049,476)	
Nucleases, extracellular	<i>Flavobacterium johnsoniae</i>	425	(extracellular)	986
	<i>Lysobacter enzymogenes</i> subsp. <i>enzymogenes</i>	2043	(extracellular)	1462
Nucleocidin	<i>Streptomyces calvus</i>	40010	(U.S. Pat. 2,914,525)	563
5'-Nucleotides	<i>Nocardioides simplex</i>	20130	by cell-culture on hydrocarbons and subsequent degradation of intracellular RNA at alkaline pH (U.S. Pat. 3,652,395)	3316
	<i>Rhodococcus fascians</i>	20669	by cell culture on hydrocarbons and subsequent degradation of intracellular RNA at alkaline pH (U.S. Pat. 3,652,395)	2860
Nystatin				
	<i>Streptomyces noursei</i>	40635		
Ochramycin	<i>Streptomyces orinoci</i>	40571		
Ochratoxin	<i>Aspergillus ostianus</i>	2452	low amounts	
Oleandomycin	<i>Streptomyces antibioticus</i>	40715		

	<i>Streptomyces antibioticus</i>	40868	(U.S. Pat. 2,757,123)	
Olivacein	<i>Streptomyces olivaceus</i>	40072		
Ornamycin	<i>Streptomyces</i> sp.	40307		
Ornithine cyclase	<i>Clostridium sporogenes</i>	767		1080
Orotidylic acid	<i>Corynebacterium ammoniagenes</i>	20305	(U.S. Pat. 3,560,342)	3357
Ossamycin	<i>Streptomyces hygrosopicus</i> subsp. <i>ossamyceticus</i>	40824	(U.S. Pat. 3,271,253)	809
Ostreogrycins (B+G+Z1+Z2+Z3)	<i>Streptomyces</i> sp.	40511		
Oxalic acid decarboxylase	<i>Flammulina velutipes</i>	3512		2969
Oxamycetin	<i>Streptomyces inusitatus</i>	41441		
8-chloro-10,11-dihydrodibenz-[b,f]-[1,4]- Oxazepin-11-one	<i>Hormodendrum</i> sp.	3015	(U.S. Pat. 4,086,268)	2740
Oxidases, H2O2-dependent	<i>Phanerochaete chrysosporium</i>	1556		3670
Oxychlororaphin	<i>Pseudomonas aeruginosa</i>	11148		6656
Oxytetracycline	<i>Streptomyces albofaciens</i>	40268		
	<i>Streptomyces alboflavus</i>	40761		
	<i>Streptomyces erumpens</i>	40941		
	<i>Streptomyces platensis</i>	40041		
	<i>Streptomyces rimosus</i> subsp. <i>rimosus</i>	40260		
	<i>Streptomyces</i> sp.	40379		
	<i>Streptomyces</i> sp.	40402		
	<i>Streptomyces varsoviensis</i>	40346		
Pachyman	<i>Wolfiporia extensa</i>	1216		
Pactamycin	<i>Streptomyces pactum</i>	40530	(Brit. Pat. 980,346)	6405
Paramomycin	<i>Streptomyces catenulae</i>	40258		
	<i>Streptomyces chrestomyceticus</i>	40545		
	<i>Streptomyces rimosus</i> subsp. <i>paramomycinus</i>	41429	(U.S. Pat. 2,916,485)	
Paramycin	<i>Streptomyces alboniger</i>	40043	(U.S. Pat.	

			2,763,642)	
Pathocidin-(8-azaguanine)	<i>Streptomyces albus</i> subsp. <i>pathocidicus</i>	40799		
Patulin	<i>Penicillium expansum</i>	1282		1251
	<i>Penicillium expansum</i>	1994		
Pectin lyase	<i>Aspergillus japonicus</i>	2345		2425
	<i>Monilinia fructigena</i>	2678		2640
Pectin methylesterase	<i>Microbacterium barkeri</i>	20145		386
	<i>Thermoanaerobacterium</i> <i>thermosulfurigenes</i>	2229	(U.S.Patent 4,572,898; U.S.Patent 4,721,676)	5314, 5315
Pectin transesterase	<i>Aspergillus japonicus</i>	2345	(U.S. Pat. 3,666,487)	2454
	<i>Microbacterium barkeri</i>	20145		386
Pectinase	<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	841		1201
	<i>Pichia canadensis</i>	70281		
	<i>Rhizopus oryzae</i>	853		
	<i>Rhizopus oryzae</i>	905		
	<i>Trichoderma</i> <i>longibrachiatum</i>	769		3598
Peliomycin	<i>Streptomyces</i> <i>luteogriseus</i>	40483		
6-amino-Penicillanic acid (amides)	<i>Escherichia coli</i>	1116		
Penicillic acid	<i>Penicillium</i> <i>aurantiogriseum</i>	1250		1105
	<i>Penicillium</i> <i>aurantiogriseum</i>	1998		
	<i>Penicillium</i> <i>aurantiogriseum</i>	2264		1877
Penicillin	<i>Penicillium chrysogenum</i>	844		
	<i>Penicillium chrysogenum</i>	848	in surface culture	1255
	<i>Penicillium chrysogenum</i>	895		
	<i>Penicillium chrysogenum</i>	1075		1221
Penicillin acylase	<i>Escherichia coli</i>	1116		
	<i>Escherichia coli</i>	2607		2598

Penicillin amidase	<i>Escherichia coli</i>	2607		2600
Penicillin derivatives	<i>Arthrobacter</i> sp.	20161	(U.S. Pat. 3,682,777)	1628
	<i>Rhodococcus fascians</i>	20131	(U.S. Pat. 3,682,777)	1628
Penicillin derivatives, transformation of	<i>Kluyvera cryocrescens</i>	2660		
Penicillin G amidase	<i>Arthrobacter viscosus</i>	20159		
Penicillin N	<i>Streptomyces lipmanii</i>	40752		
Penicillinase	<i>Bacillus cereus</i>	6127		4608
	<i>Bacillus licheniformis</i>	8785		4582
Penicilliopepsin	<i>Penicilliopepsis clavariiformis</i>	2164		1879
Penicillopepsin	<i>Penicillium simplicissimum</i>	1078		2050, 2051
2,4-Pentadienoyl-CoA reductase	<i>Clostridium viride</i>	6836		4232
Pentaene	<i>Streptomyces xantholiticus</i>	40244		
Pentaene 380	<i>Streptomyces hiroshimensis</i>	40387		
Pentaene 51-10	<i>Streptomyces</i> sp.	40850		
Pentaene antibiotic	<i>Streptomyces goshikiensis</i>	40190		
Pentaene G8	<i>Streptomyces anandii</i>	40535		
Pentaene HA-135	<i>Streptomyces cinnamoneus</i>	40899		
Pentaene HA-145	<i>Streptomyces cinnamoneus</i>	40897		
Pentaene HA-176	<i>Streptomyces cinnamoneus</i>	40898		
Pentamycin	<i>Streptomyces griseofuscus</i>	40191		
Pepsinostreptin	<i>Streptomyces catenulae</i>	40258		
Pepstatins A, B, C	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	46483	(U.S. Pat. 3,740,319)	
Perimycin	<i>Streptomyces cacaoi</i> subsp. <i>cacaoi</i>	40186		
Peroxidase	<i>Geotrichum candidum</i>	6401		

	<i>Inonotus weirii</i>	3558		3714
	<i>Phanerochaete chrysosporium</i>	6909		4301
PHA	<i>Hydrogenophaga pseudoflava</i>	1034		
Phaeofacin (anti-fungal)	<i>Streptomyces phaeofaciens</i>	40367		
PHB	<i>Alcaligenes latus</i>	1122	(high amounts)	1527
	<i>Alcaligenes latus</i>	1123	(high amounts)	1527
	<i>Alcaligenes latus</i>	1124	(high amounts)	1527
	<i>Azotobacter beijerinckii</i>	1041		
	<i>Azotobacter</i> sp.	1721		
	<i>Azotobacter</i> sp.	1722		
	<i>Azotobacter</i> sp.	1723		
	<i>Bacillus megaterium</i>	90		
	<i>Cupriavidus necator</i>	428		2040
	<i>Cupriavidus necator</i>	531		2032
PHB synthase	<i>Zoogloea ramigera</i>	287		2337
1,6-dihydroxy-Phenazine 5,10-dioxide	<i>Streptosporangium amethystogenes</i> subsp. <i>amethystogenes</i>	46128		4735
Phenazines	<i>Microbispora rosea</i> subsp. <i>aerata</i>	43176		
Phenol oxidase	<i>Panaeolina foenicisecii</i>	1776		1227
	<i>Panaeolus acuminatus</i>	1778		1227
	<i>Panaeolus fimicola</i>	1768		1227
	<i>Panaeolus papilionaceus</i>	1769		1227
	<i>Panaeolus semiovatus</i>	1777		1227
	<i>Panaeolus subbalteatus</i>	1765		1227
Phenolic hydroxyl groups, glucosidation of	<i>Beauveria bassiana</i>	1344		
Phenoxazinones	<i>Microbispora rosea</i> subsp. <i>aerata</i>	43176		
Phenylalanine, hydroxylation of	<i>Cupriavidus necator</i>	428		
N-benzoyl-L-Phenylalaninol	<i>Fennellia flavipes</i>	874		1234

(S)-2-Phenylpropionic acid	<i>Rhizobium radiobacter</i>	9674		
Phleomycin	<i>Streptomyces stramineus</i>	41783		
Phleomycin complex components	<i>Streptomyces cinnamoneus</i>	40646		
Phosalacine	<i>Kitasatospora phosalacinea</i>	43860		
1-Phosphofructokinase	<i>Clostridium pasteurianum</i>	525		969
Phospholipase C	<i>Clostridium perfringens</i>	756		2120
Phosphotransacetylase	<i>Clostridium kluyveri</i>	555		958, 1966
Phyllomycin	<i>Streptomyces</i> sp.	40242		
Phytase	<i>Aspergillus ficuum</i>	932	(extracellular)	2074, 2075
	<i>Klebsiella</i> sp.	15998		9873
Phytohormones	<i>Arthrobacter</i> sp.	3681		3280
Picolinic acid hydrolase	<i>Rhodococcus erythropolis</i>	20665		2842
Piericidins A, B	<i>Streptomyces mobaraensis</i>	40847		
Pigment	<i>Monascus purpureus</i>	1604		1155, 3658
fluorescent	<i>Azomonas agilis</i>	375		
	<i>Azotobacter vinelandii</i>	86		
	<i>Azotobacter vinelandii</i>	2289		
yellow	<i>Anoxybacillus flavithermus</i>	2641		
Pigmented antibiotic	<i>Streptomyces yerevanensis</i>	43167	of the rhodomycin-cinerubin-mycetin type	
Pikromycin	<i>Streptomyces felleus</i>	40130		
	<i>Streptomyces felleus</i>	40647		
	<i>Streptomyces olivaceus</i>	40702		
Piloquinone	<i>Streptomyces pilosus</i>	40097		
	<i>Streptomyces pilosus</i>	40714		
Pimaricin	<i>Streptomyces</i> sp.	40357		
Plasminostreptin	<i>Streptomyces</i> sp.	46484	(U.S. Pat. 4,014,860)	
	<i>Streptomyces</i> sp.	46485	(U.S. Pat. 4,014,860)	
	<i>Streptomyces</i> sp.	46486	(U.S. Pat. 4,014,860)	

Platormycin A, B	<i>Streptosporangium violaceochromogenes</i>	43872	(U.S. Pat. 3,873,692)	
Pleuromutilin	<i>Clitopilus passeckerianus</i>	1602		3673
Plicacetin	<i>Streptomyces plicatus</i>	40319		
Pluramycin A and B	<i>Streptomyces pluricolorescens</i>	40019		588
Poly(3-hydroxybutyrate) depolymerase	<i>Comamonas testosteroni</i>	6781		4931
Poly(3-hydroxyoctanoic acid) depolymerase	<i>Pseudomonas</i> sp.	7139		4821
Poly-β-hydroxyalkanoates	<i>Cupriavidus necator</i>	545		4337, 6849
Poly-β-hydroxybutyric acid				
Polyamine oxidase	<i>Aspergillus terreus</i>	1958		3692
Polycyclic ether antibiotic	<i>Dactylosporangium</i> sp.	43910	(U.S. Pat. 4,081,532)	4532
Polygalacturonase	<i>Aspergillus aculeatus</i>	63261		3731
Polygalacturonate hydrolase	<i>Thermoanaerobacterium thermosulfurigenes</i>	2229	(U.S. Patent 4,572,898; U.S. Patent 4,721,676)	5314, 5315
Polyhydroxyalkanoic acids	<i>Acidovorax facilis</i>	550		
	<i>Azomonas agilis</i>	375		
	<i>Azotobacter armeniacus</i>	2284		
	<i>Burkholderia cepacia</i>	9241		
	<i>Burkholderia cepacia</i>	50181		4337
	<i>Burkholderia</i> sp.	9242		6380
	<i>Burkholderia</i> sp.	9243		6380
	<i>Hydrogenophaga palleronii</i>	63		4554
	<i>Pseudomonas aeruginosa</i>	288	up to 69% of cell dry weight	4554
	<i>Pseudomonas chlororaphis</i>	50083		4554
	<i>Pseudomonas citronellolis</i>	50332		4554
	<i>Pseudomonas mendocina</i>	50017		4554
	<i>Cupriavidus necator</i>	545		
	<i>Cupriavidus oxalaticus</i>	1105		4554, 6185

	<i>Xanthobacter autotrophicus</i>	685		
Polynitrosin	<i>Saccharothrix mutabilis</i> subsp. <i>mutabilis</i>	43853	(U.S. Pat. 4,317,812)	4424
Polysaccharides	<i>Athelia rolfsii</i>	2651	(U.S. Pat. 3,301,848)	2493
	<i>Athelia rolfsii</i>	2652	(U.S. Pat. 3,301,848)	2493
	<i>Athelia rolfsii</i>	2818	(U.S. Pat. 3,301,848)	2493
	<i>Athelia rolfsii</i>	2819	(U.S. Pat. 3,301,848)	2493
	<i>Azotobacter vinelandii</i>			
	<i>Lysobacter gummosus</i>	6980		1454
	<i>Sclerotium coffeicola</i>	2820	(U.S. Pat. 3,301,848)	2493
	<i>Sclerotium delphinii</i>	2653	(U.S. Pat. 3,301,848)	2493
	<i>Sclerotium delphinii</i>	2654	(U.S. Pat. 3,301,848)	2493
	<i>Sclerotium delphinii</i>	2817	(U.S. Pat. 3,301,848)	2493
	<i>Xanthobacter</i> sp.	6448	(U.S. Pat. 4,874,044)	
dextran	<i>Leuconostoc mesenteroides</i> subsp. <i>dextranicum</i>	20187		
	<i>Leuconostoc mesenteroides</i> subsp. <i>mesenteroides</i>	20240		
	<i>Leuconostoc mesenteroides</i> subsp. <i>mesenteroides</i>	20241		
	<i>Leuconostoc mesenteroides</i> subsp. <i>mesenteroides</i>	20343		
levan	<i>Microbacterium laevaniformans</i>	20140		
pachyman	<i>Wolfiporia extensa</i>	1216		3651
Porfiromycin	<i>Streptomyces arduus</i>	40527		
Prasinomycin	<i>Streptomyces prasinus</i>	40774		
Pregnadienes	<i>Nocardioides simplex</i>	20130	(U.S. Pat.	3314

			2,837,464)	
Primocarcin	<i>Streptomyces diastatochromogenes</i>	40608		1405
Pristinamycin	<i>Streptomyces</i> sp.	40338		
Proactinomycin A	<i>Streptomyces felleus</i>	40647		
Proactinomycin A, B, C	<i>Streptomyces gardneri</i>	40064		
Proceomycin	<i>Streptomyces albolongus</i>	40570		
Prodigosine	<i>Streptomyces</i> sp.	40848		
	<i>Streptomyces spectabilis</i>	40512		
trans-4-ethyl-L-Proline	<i>Streptomyces lincolnensis</i>	919	(U.S. Pat. 3,753,859)	1818
trans-4-n-propyl-L-Proline	<i>Streptomyces lincolnensis</i>	919	(U.S. Pat. 3,753,859)	1818
Proline dehydrogenase	<i>Clostridium sporogenes</i>	767		2170
1,3-Propanediol	<i>Clostridium beijerinckii</i>	6423		4188
1,2-Propanediol	<i>Clostridium sphenoides</i>	614		
1,3-Propanediol	<i>Desulfovibrio carbinolicus</i>	3852		
	<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i>	2026		6184
	<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i>	4270		
	<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i>	12082		7483
2-Propanol	<i>Clostridium beijerinckii</i>	6423		4186
3-OH-Propionate	<i>Desulfovibrio carbinolicus</i>	3852		
Propylamine transferase	<i>Sulfolobus solfataricus</i>	5833		4148
Prostaglandin	<i>Streptomyces</i> sp.	40866		
Protease	<i>Acremonium chrysogenum</i>	880		1206
	<i>Aneurinibacillus migulanus</i>	2895	(extracellular)	2789
	<i>Bacillus cereus</i>	3101	(extracellular, thermostable up to 60°C)	
	<i>Bacillus circulans</i>	1973		
	<i>Bacillus</i> sp.	405		39, 44
	<i>Bacillus</i> sp.	578		653

	<i>Bacillus</i> sp.	1972		
	<i>Candida tropicalis</i>	4959	(extracellular, low activity)	3746
	<i>Coprinus cinereus</i>	886	(U.S. Pat. 3,694,316)	3631
	<i>Coprinus radians</i>	888	(U.S. Pat. 3,694,316)	3631
	<i>Dictyostelium discoideum</i>	1499		3663
	<i>Lysobacter enzymogenes</i> subsp. <i>enzymogenes</i>	1895	(extracellular)	1457, 1458, 1459, 1460
	<i>Lysobacter enzymogenes</i> subsp. <i>enzymogenes</i>	2043	(extracellular)	1463, 1464
	<i>Ruminobacter amylophilus</i>	1361		1388
	<i>Streptomyces</i> sp.	40529		
	<i>Streptomyces</i> sp.	40531		
	<i>Streptomyces</i> sp.	40533		
	<i>Vibrio proteolyticus</i>	30189		
Protease, acid	<i>Candida parapsilosis</i>	4237		3742
	<i>Candida tropicalis</i>	4238		3742
Protease, alkaline	<i>Bacillus alcalophilus</i>	485		170
	<i>Bacillus clausii</i>	2512		2585, 2586
	<i>Bacillus clausii</i>	2515		2611
	<i>Bacillus licheniformis</i>	1969		2433
	<i>Bacillus</i> sp.	2514		2611
	<i>Bacillus subtilis</i>	1970		1404
	<i>Bacillus subtilis</i>	1971		2450
Protein	<i>Bacillus</i> sp.	54		
	<i>Cellulomonas uda</i>	20108	(U.S. Pat. 3,627,095)	1015
	<i>Corynebacterium ammoniagenes</i>	20305		
	<i>Methylobacterium rhodesianum</i>	1759		
	<i>Pichia jadinii</i>	2361		
Protein A	<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	20372		

Protein from ryegrass straw	<i>Pichia jadinii</i>	70167		2461
Proteolytic enzymes	<i>Bacillus circulans</i>	1973	(Brit. Pat. 1,243,784)	2613
Protomycin	<i>Streptomyces</i> sp.	40849		2255
Puberulic acid	<i>Penicillium aurantiogriseum</i>	2264		1876
Pullulan	<i>Aureobasidium pullulans</i>	2404		2649
Pullulanase	<i>Raoultella planticola</i>	4617		
	<i>Thermoanaerobacter acetoethylicus</i>	2359		3576
	<i>Thermoanaerobacter brockii</i> subsp. <i>finii</i>	3389		3576
	<i>Thermoanaerobacter ethanolicus</i>	2246		3576
	<i>Thermoanaerobacter thermohydrosulfuricus</i>	7021	type II	4525
	<i>Thermoanaerobacter thermohydrosulfuricus</i>	7022	type II	4525
	<i>Thermoanaerobacterium thermosaccharolyticum</i>	572		3576
	<i>Thermoanaerobacterium thermosulfurigenes</i>	3896		3097
Pulvinone derivatives	<i>Aspergillus terreus</i>	826		1246
Puromycin	<i>Streptomyces alboniger</i>	40043	(U.S. Pat. 2,763,642)	535
Purpuromycine	<i>Actinoplanes</i> sp.	43864	(U.S. Pat. 3,914,257)	
Pyracrimycine	<i>Streptomyces</i> sp.	40750	(U.S. Pat. 3,737,439)	
Pyrazine carboxylamidase	<i>Corynebacterium tuberculostearicum</i>	44922		9903
Pyrazon dioxygenase	<i>Phenylobacterium immobile</i>	1986		2948
Pyridine-2,6-di(monothiocarboxylic acid)	<i>Pseudomonas putida</i>	3601		3905, 3906
	<i>Pseudomonas</i> sp.	3602		3908
Pyridomycine	<i>Dactylosporangium fulvum</i>	43917		
Pyrocatechase	<i>Pseudomonas putida</i>	437		220, 221, 1785

Pyruvate synthase	<i>Chlorobium limicola</i>	249		2146
D-Quinvosamine	<i>Alcaligenes</i> sp.	30002		271
Racemomycine complex	<i>Streptomyces racemochromogenes</i>	40194		
Raisnomycine	<i>Streptomyces netropsis</i>	40052		572
Reichstein's compound S, dehydrogenation	<i>Plectosphaerella cucumerina</i>	3048		
Resistomycin	<i>Streptomyces arabicus</i>	40252		
	<i>Streptomyces resistomycificus</i>	40133		
Restriction endonuclease AacI (BamHI)	<i>Gluconacetobacter liquefaciens</i>	5603		2358
Abri (XhoI)	<i>Azospirillum brasilense</i>	1844		2358
AluI	<i>Cellulosimicrobium cellulans</i>	20424		1315
AprI (NaeI)	<i>Actinosynnema pretiosum</i> subsp. <i>pretiosum</i>	44132		6633
BacI (SacII)	<i>Alicyclobacillus acidocaldarius</i> subsp. <i>acidocaldarius</i>	446		2358
Ball	<i>Curtobacterium albidum</i>	20512		1316
BamFI (BamHI)	<i>Bacillus amyloliquefaciens</i>	7		2358
BamKI (BamHI)	<i>Bacillus amyloliquefaciens</i>	1061		2358
BbvI	<i>Aneurinibacillus migulanus</i>	2895		2358
Bce 14579	<i>Bacillus cereus</i>	31		2358
BclI	<i>Bacillus</i> sp.	405		2358
BluI, BluII	<i>Curtobacterium luteum</i>	20542		
BstPI (Bst EII)	<i>Geobacillus stearothermophilus</i>	22		2358
Bsu 6633	<i>Bacillus subtilis</i> subsp. <i>spizizenii</i>	347		2358
CfoI	<i>Clostridium formicaceticum</i>	93		2358
CltI	<i>Caryophanon latum</i>	484		2358
CviI	<i>Chromobacterium violaceum</i>	30191		2358

Ddel, Ddell	<i>Desulfomicrobium norvegicum</i>	1741		2358
Ddsl (BamHI)	<i>Desulfovibrio desulfuricans</i> subsp. <i>desulfuricans</i>	6949		2358
Ecal, Ecall	<i>Enterobacter cloacae</i>	30056		2358
Eccl	<i>Enterobacter cloacae</i>	30060		
Hagl	<i>Halococcus agglomeratus</i>	5684		2358
HgiDI, HgiDII	<i>Herpetosiphon</i> sp.	589		2310, 2358
Mbol, Mboll	<i>Moraxella (Moraxella) bovis</i>	6328		2358, 6667, 6668
Mecl	<i>Micromonospora echinospora</i>	43816		4762
Mizl	<i>Micromonospora chalcea</i>	43895		
Mosl (Mbol)	<i>Moraxella (Moraxella) osloensis</i>	6998		2358, 6668
Mral	<i>Deinococcus radiodurans</i>	20539		2358
Mth I	<i>Brochothrix thermosphacta</i>	20171		2358
Mvnl	<i>Methanococcus vannielii</i>	1224		
Nael	<i>Lechevalieria aerocolonigenes</i>	40034		2358
Nasl (PstI)	<i>Nocardia farcinica</i>	46004		6633
Nbal (Nael)	<i>Nocardia brasiliensis</i>	43758		2358
Nbll (PvuI)	<i>Nocardia farcinica</i>	43298		2358
Ncol	<i>Rhodococcus</i> sp.	43001		2358
NmuEI (Dpnl), NmuEII (AsuI)	<i>Neisseria mucosa</i>	4631		2358
Nocl (PstI)	<i>Nocardia otitidiscaviarum</i>	43242		2358
Pall	<i>Providencia alcalifaciens</i>	30120		2358
Pvul, Pvull	<i>Proteus hauseri</i>	30118		2358
Rhpl (Sall), Rhpll	<i>Rhodococcus rhodochrous</i>	43302		2358
Rrol (Sall)	<i>Rhodococcus rhodochrous</i>	363		
Sacl, Sacll	<i>Streptomyces achromogenes</i> subsp. <i>achromogenes</i>	40028		2358
Sau 96I	<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	20652		

Sbol	<i>Streptomyces bobili</i>	40056		2358
Scul (Xhol)	<i>Streptomyces cuspidosporus</i>	41425		2358
Sfil	<i>Streptomyces fimbriatus</i>	40942		2358
Sgol (Xhol)	<i>Streptomyces goshikiensis</i>	40190		2358
Sgrl	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40236		2358
Skal (NaeI), Skall (PstI)	<i>Streptomyces</i> sp.	40345		2358
Slal	<i>Streptomyces lavendulae</i> subsp. <i>lavendulae</i>	40069		
Slul (Xhol)	<i>Streptomyces luteireticuli</i>	40509		2358
SodI, SodII	<i>Streptomyces odorifer</i>	40347		2358
Spal (Xhol)	<i>Streptomyces albus</i> subsp. <i>pathocidicus</i>	40799		2358
TaqI, TaqII	<i>Thermus aquaticus</i>	625		2358
Tfil (TaqI)	<i>Thermus thermophilus</i>	674		2358
TgII (ScaII)	<i>Saccharomonospora caesia</i>	43068		
Thal	<i>Clostridium pasteurianum</i>	525		6632
	<i>Thermoplasma acidophilum</i>	1728		2358
Tth HB8I	<i>Thermus thermophilus</i>	579		2358
XbaI	<i>Xanthomonas</i> sp.	3850		2358
XhoI, XhoII	<i>Xanthomonas</i> sp.	3851		2358
XmaI (SmaI), XmaII (PstI), XmaIII	<i>Xanthomonas axonopodis</i> pvar. <i>malvacearum</i>	3849		2358
Restriction endonucleases	<i>Myxococcus fulvus</i>	434		2310
Reticulin	<i>Streptomyces</i> sp.	40852		
Rhapidosomes	<i>Cellulophaga lytica</i>	7489		
	<i>Cytophaga</i> sp.	2062		
Rhodomyacin A	<i>Streptomyces purpurascens</i>	40310		
Rhodomyacin A + B	<i>Streptomyces cinereoruber</i> subsp. <i>cinereoruber</i>	40012		
Rhodomyacin B	<i>Streptomyces purpurascens</i>	40310		

β-Rhodomycline	<i>Streptomyces violaceus</i>	40704		5213
Rhodomycline	<i>Streptomyces violarus</i>	40205		
Riboflavin	<i>Acremonium diospyri</i>	2939		2739
	<i>Bacillus megaterium</i>	2894		
	<i>Candida membranaefaciens</i>	70109		
	<i>Pichia guilliermondii</i>	70051		
Ribonuclease	<i>Cupriavidus necator</i>	541		2215
5'-Ribosyl phosphates of 8-azapurine derivatives	<i>Corynebacterium ammoniagenes</i>	20306	(U.S. Pat. 3,296,089)	3361
D-Ribulokinase	<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i>	681		6183
Ribulose-1,5-bisphosphate carboxylase	<i>Paracoccus pantotrophus</i>	65		1755
	<i>Cupriavidus necator</i>	541		1061
Rifamicins O	<i>Actinomadura formosensis</i>	43997		
Rifamicins S	<i>Actinomadura formosensis</i>	43997		
Rifamycin	<i>Amycolatopsis tolypomycina</i>	44544		8202
Rifamycin complex	<i>Micromonospora</i> sp.	43908	(U.S. Pat. 3,914,218)	
27-demethoxy-27-hydroxy-Rifamycin derivates	<i>Amycolatopsis mediterranei</i>	46096	(U.S. Pat 3,743,635)	
Rifamycin SV	<i>Amycolatopsis mediterranei</i>	43304	(U.S. Pat. 2,988,490)	4443
	<i>Amycolatopsis rifamycinica</i>	46095		
Rimocidin	<i>Streptomyces rimosus</i> subsp. <i>rimosus</i>	40260		
Rinamycine	<i>Streptomyces venezuelae</i>	40727		
Ristocetin A	<i>Amycolatopsis lurida</i>	43134		
Ristocetin B	<i>Amycolatopsis lurida</i>	43134		
RNA degrading enzymes	<i>Yarrowia lipolytica</i>	1345		2264
Roquefortine	<i>Penicillium roqueforti</i>	1079		2063
	<i>Penicillium roqueforti</i>	1080		2063
Rosaramycin	<i>Micromonospora rosaria</i>	803		

Roseolic acid (anti-tumor agent)	<i>Streptomyces</i> sp.	40566	(U.S. Pat. 3,311,537)	
Rotaventin	<i>Streptomyces</i> sp.	40852		
Rubradirin	<i>Streptomyces achromogenes</i> subsp. <i>rubradiris</i>	40789		
Rubredoxin	<i>Clostridium pasteurianum</i>	525		
Rubrochlorin	<i>Streptomyces</i> sp.	40850		
Rubrofusarin	<i>Aspergillus niger</i>	872		1232
Rubromycine	<i>Streptomyces collinus</i>	40129		
Rufinosporin	<i>Micromonospora</i> sp.	43172	(nocardosporin)	
Rugulosin	<i>Penicillium variable</i>	1996		
Salinomycine	<i>Streptomyces albus</i> subsp. <i>albus</i>	41398	(U.S. Pat. 3,857,948)	2912
Saramycetin	<i>Streptomyces</i> sp.	40241		
Sarcidin	<i>Streptomyces achromogenes</i> subsp. <i>achromogenes</i>	40028		550
Sarcosine dehydrogenase	<i>Pseudomonas putida</i>	1991		1840, 1842
SAX-10 (indicator)	<i>Streptomyces</i> sp.	40862		
Sclerin	<i>Aspergillus carneus</i>	1518		1138
Scleroglucans	<i>Sclerotium gluconicum</i>	2159	(U.S. Pat. 3,301,848)	3697
Scopamycine	<i>Streptomyces aureofaciens</i>	40724		
Secondary alcohol dehydrogenase	<i>Methanobacterium palustre</i>	3108		3540
Secondary alcohol oxidase	<i>Candida boidinii</i>	70026		3747
	<i>Candida boidinii</i>	70033		3747
	<i>Issatchenkia orientalis</i>	70086		3747
	<i>Pichia finlandica</i>	70280		3747
	<i>Pichia jadinii</i>	70167		3747
Selenobiotin	<i>Phycomyces blakesleeanus</i>	900		3634
Septacidin	<i>Streptomyces fimbriatus</i>	40942	(U.S. Pat. 3,155,647)	
L-Serine	<i>Arthrobacter citreus</i>	20133	(U.S. Pat. 3,231,952)	3387

o-carbamyl-D-Serine	<i>Streptomyces polychromogenes</i>	40316	(U.S. Pat. 2,885,433)	
Sesquiterpene lactone costunolide, transformation	<i>Plectosphaerella cucumerina</i>	3048		
Setamycine	<i>Kitasatospora griseola</i>	43859		
	<i>Kitasatospora setae</i>	43861		
Showdomycin	<i>Streptomyces showdoensis</i>	40504	(U.S. Pat. 3,316,149)	
Single cell protein	<i>Cellulosimicrobium cellulans</i>	20106	(U.S. Pat. 3,778,349)	1627
	<i>Cupriavidus necator</i>	428		
	<i>Cupriavidus necator</i>	531		
	<i>Cupriavidus necator</i>	541		915
Siomycine	<i>Streptomyces sioyaensis</i>	40032	(U.S. Pat. 3,082,153)	594
Sisomycin	<i>Micromonospora inyonensis</i>	46123		4574
Sistomycine (tetraene)	<i>Streptomyces viridosporus</i>	40243		
Sorbitol-6-phosphate dehydrogenase	<i>Clostridium pasteurianum</i>	525		966
Sorbose	<i>Gluconobacter oxydans</i> subsp. <i>suboxydans</i>	50049		
L-Sorbosone	<i>Kocuria rhizophila</i>	348	(U.S. Pat. 3,912,592)	1641
Sparsomycine	<i>Streptomyces cuspidosporus</i>	41425		
	<i>Streptomyces sparsogenes</i>	40356		
Sphingoglycolipid	<i>Sphingomonas paucimobilis</i>	30198		
Sphingolipids	<i>Phycomyces blakesleeanus</i>	900		1256
Spiramycin	<i>Streptomyces ambofaciens</i>	40697		
Spiramycin I, II, III	<i>Streptomyces ambofaciens</i>	40053		
Spiramycin netropsin	<i>Streptomyces ambofaciens</i>	40053		
Sporangiomycine	<i>Planomonospora parontospora</i> subsp.	43869		

	<i>antibiotica</i>			
Sporavidin	<i>Kutzneria viridogrisea</i>	43850		
Sporavidin-like antibiotic	<i>Kutzneria albida</i>	43870		
	<i>Streptosporangium album</i>	43023		
Squalene	<i>Clostridium pasteurianum</i>	525		
	<i>Nannocystis exedens</i> subsp. <i>exedens</i>	71		9459
Steffimycin B	<i>Streptomyces</i> sp.	922	(U.S. Pat. 3,794,721)	1822, 1823
Steffisburgensimycin	<i>Streptomyces</i> sp.	40547		
Sterigmatocystin	<i>Aspergillus versicolor</i>	1943		3689
Steroids	<i>Curvularia verruculosa</i>	1157	(German Pat. 2,047,071)	
	<i>Nannocystis exedens</i> subsp. <i>exedens</i>	71		9459
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40226		
16-alpha-hydroxylated	<i>Staurophoma</i> sp.	858	(U.S. Pat. 3,071,516)	3622
	<i>Streptomyces halstedii</i>	40863	(U.S.Pat.2,991,230)	
	<i>Streptomyces</i> sp.	40864		
	<i>Streptomyces</i> sp.	40865		
18-hydroxylation	<i>Aspergillus niger</i>	821		
2-β-hydroxylated, of the pregnane series	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40881		
3-ketoDelta1,4	<i>Nocardioides simplex</i>	20130	(U.S. Pat. 3,010,876)	4677
	<i>Rhodococcus erythropolis</i>	43066		
7-cyano	<i>Nocardioides simplex</i>	20130	(U.S. Pat. 3,050,534)	2734
9-alpha-hydroxy	<i>Comamonas testosteroni</i>	50244	(U.S. Pat. 3,065,146)	1036
	<i>Rhodococcus</i> sp.	43287		
aromatic	<i>Rhodococcus erythropolis</i>	772		
	<i>Rhodococcus erythropolis</i>	43297		
oxidation	<i>Agromyces mediolanus</i>	20152		

	<i>Botrytis cinerea</i>	877		
oxygenated	<i>Rhodococcus erythropolis</i>	43296		
oxygenated compounds	<i>Pestalotia foedans</i>	849		3615
	<i>Pestalotiopsis microspora</i>	850	(U.S. Pat. 3,721,163)	3615
oxygenation	<i>Bipolaris australiensis</i>	911		
production or transformation	<i>Actinomucor elegans</i>	1174		1263
	<i>Bacillus fusiformis</i>	2898		
	<i>Bacillus sphaericus</i>	2899		
	<i>Cladosporium</i> sp.	832		3609
	<i>Clostridium</i> sp.	4029		
	<i>Cunninghamella elegans</i>	1908		1187
	<i>Cylindrocarpon destructans</i>	837		
	<i>Emericella nidulans</i>	820		
	<i>Fusarium ciliatum</i>	879		1204
	<i>Microascus trigonosporus</i>	942		2076
	<i>Micromonospora</i> sp.	43295		
	<i>Mortierella zonata</i>	842		
	<i>Mycobacterium</i> sp.	2966		
	<i>Mycobacterium</i> sp.	2967		
	<i>Paecilomyces lilacinus</i>	846		1260
	<i>Penicillium simplicissimum</i>	856		3620
	<i>Plectosphaerella cucumerina</i>	3048		2734, 2735
	<i>Rhizoctonia solani</i>	843		3614
	<i>Rhizopus oryzae</i>	907		3639
	<i>Rhizopus stolonifer</i>	855		
	<i>Rhodococcus erythropolis</i>	313		
	<i>Rhodococcus rhodochrous</i>	43273		
	<i>Spicaria</i> sp.	857		
	<i>Streptomyces californicus</i>	40801		
	<i>Streptomyces griseus</i>	773		

	subsp. <i>griseus</i>			
	<i>Streptomyces hydrogenans</i>	40586		
	<i>Streptomyces microflavus</i>	40331		
	<i>Thanatephorus cucumeris</i>	1907		
unsaturated	<i>Hanseniaspora osmophila</i>	2249	(U.S. Pat. 3,616,225)	3735
Streptocine	<i>Streptomyces griseinus</i>	40047		
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40817		807
Streptococci, enzyme lytic on cariogenic	<i>Streptomyces globisporus</i> subsp. <i>globisporus</i>	40991		2680
Streptogramin A, B	<i>Streptomyces graminofaciens</i>	40559		
Streptolin	<i>Streptomyces fradiae</i>	40696		
	<i>Streptomyces vinaceusdrappus</i>	40470		
Streptolydigin	<i>Streptomyces lydicus</i>	40461		
Streptolysin O	<i>Streptococcus pyogenes</i>	2073		
	<i>Streptococcus pyogenes</i>	2074		
Streptolysin S	<i>Streptococcus pyogenes</i>	2071		1937
	<i>Streptococcus pyogenes</i>	2072		1937
	<i>Streptococcus pyogenes</i>	2073		
	<i>Streptococcus pyogenes</i>	2074		
Streptomycin	<i>Streptomyces galbus</i>	40480		
hydroxy- Streptomycin	<i>Streptomyces griseocarneus</i>	40004		562
Streptomycin	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40236		589
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40759		
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40855		
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40881		
	<i>Streptomyces mashuensis</i>	40221		580
	<i>Streptomyces</i> sp.	40307		

Streptomycin II	<i>Streptomyces bikiniensis</i>	40581		
Streptonigrin	<i>Streptomyces bottropensis</i>	40800	(U.S. Pat. 3,372,090)	
	<i>Streptomyces flocculus</i>	40808	(U.S. Pat. 3,372,090)	
	<i>Streptomyces</i> sp.	40811	(U.S. Pat. 3,372,090)	
Streptorubin B	<i>Streptomyces roseovercillatus</i>	40900		
Streptothricin	<i>Streptomyces lavendulae</i> subsp. <i>lavendulae</i>	40069		574, 575, 576
	<i>Streptomyces lavendulae</i> subsp. <i>lavendulae</i>	40748		
	<i>Streptomyces</i> sp.	40879		
Streptothricin A	<i>Streptomyces albidoflavus</i>	40792		
Streptothricin complex	<i>Streptomyces lavendofoliae</i>	40217		
	<i>Streptomyces racemochromogenes</i>	40194		
Streptovaricin complex	<i>Streptomyces spectabilis</i>	40512		
Succinate	<i>Anaerobiospirillum succiniciproducens</i>	6400		4185
Succinoglucan depolymerase	<i>Cytophaga arvensicola</i>	3695		3197
Sugars (reducing)	<i>Erwinia amylovora</i>	30165		2483
Sulfoamidases	<i>Pedobacter heparinus</i>	2366		2350, 2352, 2353
Sulfoesterases	<i>Pedobacter heparinus</i>	2366		2350, 2352, 2353
Sulfur from thiosulfate	<i>Thermoanaerobacterium thermosulfurigenes</i>	2229		2313
Sulphoacetaldehyde acetyltransferase	<i>Burkholderia</i> sp.	15090		8621
Superoxide dismutase	<i>Thiobacillus denitrificans</i>	807		1651
Surfactant rhamnolipid	<i>Pseudomonas aeruginosa</i>	1128		4925, 5205
Surfactin	<i>Bacillus subtilis</i> subsp. <i>subtilis</i>	3256		2935
	<i>Bacillus subtilis</i> subsp. <i>subtilis</i>	3257		2935

	<i>Bacillus subtilis</i>	3258		2935
Syringomycin	<i>Pseudomonas syringae</i>	1241		1248, 1860, 1861, 1862
Syringotoxin	<i>Pseudomonas syringae</i>	1242		1248, 1861
Taitomycin	<i>Streptomyces afghaniensis</i>	40228		
	<i>Streptomyces griseosporus</i>	40562		
Takacidin	<i>Streptomyces cinnamoneus</i>	40507		
	<i>Streptomyces</i> sp.	40576		
Tauromycetin	<i>Streptomyces tauricus</i>	40560		
Tennecetin	<i>Streptomyces chattanoogensis</i>	40002		547
Terramycine	<i>Streptomyces platensis</i>	40041	(Brit. Pat. 713,795)	
Terregens factor	<i>Arthrobacter pascens</i>	20545		1301
Tertiomycine A	<i>Streptomyces eurocidicus</i>	40051		534
	<i>Streptomyces eurocidicus</i>	40604		
Tertiomycine B	<i>Streptomyces eurocidicus</i>	40604		
delta-Testolactone	<i>Cylindrocarpum destructans</i>	837	(U.S. Pat. 2,744,120)	3611
Tetracycline	<i>Streptomyces aureofaciens</i>	40127	(U.S. Pat. 3,053,740)	
	<i>Streptomyces aureofaciens</i>	40631		
	<i>Streptomyces aureofaciens</i>	46447		570
	<i>Streptomyces avellaneus</i>	40554		
	<i>Streptomyces lusitanus</i>	40568	(U.S. Pat. 3,401,088)	
	<i>Streptomyces</i> sp.	40239	(U.S. Pat. 2,712,517)	
Tetraene 380	<i>Streptomyces hiroshimensis</i>	40387		
Tetraene 51-10	<i>Streptomyces</i> sp.	40850		
Tetraene anti-fungals	<i>Streptomyces xantholiticus</i>	40244		
Thermorubin	<i>Laceyella sacchari</i>	43047		

Thiaminase	<i>Paenibacillus thiaminolyticus</i>			
Thienamycin	<i>Streptomyces</i> sp.	46488	(U.S. Pats. 3,950,357 4,006,060 4,168,268 4,198,338 4,282,322 and 4,304,867)	4586
8-epi-Thienamycin	<i>Streptomyces</i> sp.	46488	(U.S. Pat. 4,335,212)	
Thiolutin	<i>Streptomyces kasugaensis</i>	40819		6174
	<i>Streptomyces luteosporus</i>	40833		
Thiostrepton	<i>Streptomyces azureus</i>	40106	(U.S. Pat. 2,982,689)	539
Thraustomycin	<i>Streptomyces exfoliatus</i>	40735		
Threonine deaminase	<i>Acidiphilium acidophilum</i>	700		1656
Tobramycin				
	<i>Streptoalloteichus hindustanus</i>	44523		8194
Tolypomycin	<i>Amycolatopsis tolypomycina</i>	44544		8203
Toxin	<i>Hypoxylon mammatum</i>	1533		1143
Toxoflavin	<i>Burkholderia gladioli</i>	11318		6801
Toyokamycine	<i>Streptomyces</i> sp.	40030	(Japan. Pat. SHO 323049 and SHO 236280)	596, 597
3-Trehalosamine	<i>Nocardiosis trehalosi</i>	44380		7500
Tremortin A, B, C	<i>Penicillium aurantiogriseum</i>	2264		3700
Trichomycin A, B, C	<i>Streptomyces cinnamoneus</i>	40114		566
Trichothecin	<i>Trichothecium roseum</i>	860		
Trisporic acid	<i>Blakeslea trispora</i>	1254		1106
	<i>Blakeslea trispora</i>	1255		1106
Tropolone	<i>Burkholderia plantarii</i>	7128		4698
	<i>Burkholderia plantarii</i>	9509		4698
5-hydroxy-L-Tryptophan	<i>Bacillus licheniformis</i>	1913	(U.S. Pat. 3,830,696)	2432

L-Tryptophan	<i>Rhodococcus</i> sp.	20165	(U.S. Pat. 3,591,456)	1014
	<i>Streptomyces antibioticus</i>	40764		
Tubercidin	<i>Streptomyces cuspidosporus</i>	41425		
	<i>Streptomyces sparsogenes</i>	40356		
	<i>Streptomyces tubercidicus</i>	40261		
Tuberin	<i>Streptomyces amakusaensis</i>	40219		
Tubermycin A, B	<i>Streptomyces misakiensis</i>	40222		
Turomycin	<i>Streptomyces tuirus</i>	40505		
Tylosin	<i>Streptomyces fradiae</i>	41757		6390
Tyrocidin	<i>Brevibacillus parabrevis</i>	362		40, 41, 943, 944
Ubiquinone-10	<i>Oosporidium margaritiferum</i>	70351	(U.S. Pat. 4,070,244)	3737
	<i>Rhodobacter sphaeroides</i>	158		
	<i>Rhodospirillum rubrum</i>	467		
	<i>Rhodovulum sulfidophilum</i>	1374		
	<i>Sporidiobolus ruineniae</i>	3453	(U.S. Pat. 4,070,244)	3737
Urate oxidase	<i>Absidia glauca</i>	811	(U.S. Pat. 3,620,923)	3599
Urea hydrolyase	<i>Myrothecium verrucaria</i>	2087	inducable	4304
Urease	<i>Sporosarcina pasteurii</i>	33		80, 948
	<i>Sporosarcina ureae</i>	317		995
	<i>Sporosarcina ureae</i>	320		995
Uricase	<i>Arthrobacter uratoxydans</i>	20647	(U.S. Pat. 3,767,533)	2730
	<i>Arthrobacter uratoxydans</i>	20648	(U.S. Pat. 3,767,533)	2730
	<i>Bacillus fastidiosus</i>	83		
	<i>Bacillus fastidiosus</i>	1305		
	<i>Bacillus</i> sp.	1306	(German Pat. 19 41 768)	2401, 2402

Ustilagic acid	<i>Ustilago maydis</i>	3121		
L-Valin	<i>Citrobacter</i> sp.	30041	(German Pat. 1,217,321)	
Valinomycin	<i>Nocardioopsis umidischolae</i>	44362		7472
	<i>Streptomyces fulvissimus</i>	40767		
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	41748		7472
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	41749		7472
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	41750		7472
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	41751		7472
Vancomycin	<i>Amycolatopsis orientalis</i> subsp. <i>orientalis</i>	40040	(U.S. Pat. 3,067,099)	586
Vengicidin	<i>Streptomyces</i> sp.	40379		
Venturicidin B	<i>Streptomyces aureofaciens</i>	40731		
Vernamycin A, B, Bβ	<i>Streptomyces</i> sp.	40825		
Verrucarins A, B, transformation	<i>Rhizopus oryzae</i>	906		
Verruculogen	<i>Penicillium brasilianum</i>	1031		2053
	<i>Penicillium brasilianum</i>	1032		2053
	<i>Penicillium simplicissimum</i>	1097		1220
Vinactin	<i>Streptomyces vinaceus</i>	40257		
Vinegar	<i>Acetobacter pasteurianus</i>	2324		
Vinylacetyl isomerase	<i>Clostridium kluveri</i>	555		957
Violacein	<i>Chromobacterium violaceum</i>	30191		5213
	<i>Janthinobacterium lividum</i>	1522		851
Violacin	<i>Streptomyces yerevanensis</i>	43167		
Violarin B	<i>Streptomyces violarus</i>	40205		
Viomycin	<i>Streptomyces californicus</i>	40058		
	<i>Streptomyces floridae</i>	40938		
Viomycin A, B, C	<i>Streptomyces puniceus</i>	40083	(German Pat.	590

			834582)	
Viomycin complex	<i>Streptomyces abikoensis</i>	40105		
Viridogrisein	<i>Streptomyces griseoviridis</i>	40229		
Vitamin B12	<i>Ancyllobacter</i> sp.	1106		2147
	<i>Bacillus megaterium</i>	509		366
	<i>Bacillus megaterium</i>	2894		
	<i>Prauserella rugosa</i>	43194	(Brit. Pat. 794,151)	797, 799, 2212
	<i>Propionibacterium freudenreichii</i> subsp. <i>freudenreichii</i>	20271		
	<i>Rhodospirillum rubrum</i>	468		
	<i>Sphingomonas paucimobilis</i>	30198		864
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	40226		
	<i>Streptomyces griseinus</i>	40047		
	<i>Streptomyces griseus</i> subsp. <i>griseus</i>	46440		
	<i>Streptomyces olivaceus</i>	40756		
	<i>Streptomyces olivaceus</i>	41536	(Brit. Pat. 935,701)	6407
	<i>Streptomyces vinaceus</i>	40257		
	<i>Streptomyces vinaceus</i>	40515		
Werramycine	<i>Streptomyces werraensis</i>	40745		
Xanthalycline	<i>Streptomyces xantholiticus</i>	40244		
Xanthicin (anti-fungal)	<i>Streptomyces xanthochromogenes</i>	40111		
Xanthine dehydrogenase	<i>Clostridium acidurici</i>	604		1903
	<i>Clostridium cylindrosporium</i>	605		1903
	<i>Nocardioides albus</i>	43109	(Jpn. Pat. 61,170,386)	
	<i>Pseudomonas putida</i>	6384		4570
Xanthocidin	<i>Streptomyces xanthocidicus</i>	40575		
Xanthomegnin	<i>Aspergillus ochraceus</i>	2499		

Xanthomonadin I	<i>Xanthomonas campestris</i>	1050		
	<i>Xanthomonas</i> sp.	1049	(pigment)	2079
Xanthomycin	<i>Streptomyces pseudogriseolus</i>	40026		
Xylanase	<i>Phanerochaete chrysosporium</i>	6909		4716
D-Xylose isomerase	<i>Thermus thermophilus</i>	579	(thermostable)	4701
Yeast protein	<i>Pichia jadinii</i>	2361		2423
Yeast-lyzing enzymes	<i>Myxococcus fulvus</i>	52015		9056
Yohimbine, hydroxylation	<i>Streptomyces fradiae</i>	40810		
Zaomycin	<i>Streptomyces zaomyceticus</i>	40196		
Zearalenone (F-2)	<i>Fusarium culmorum</i>	1094		1134
	<i>Fusarium graminearum</i>	1095		1134
	<i>Fusarium graminearum</i>	1096		1134