# 271: ACIDITHIOBACILLUS (APH) MEDIUM

| | | |
|---|---|---|
| $(NH_4)_2SO_4$ | 2.00 | g |
| $K_2HPO_4$ | 0.50 | g |
| $MgSO_4$ x 7 $H_2O$ | 0.50 | g |
| KCl | 0.10 | g |
| $Ca(NO_3)_2$ x 4 $H_2O$ | 0.02 | g |
| $FeSO_4$ x 7 $H_2O$ | 8.00 | g |
| Distilled water | 1000.00 | ml |

1. Dissolve ingredients and adjust pH to 2.0 with 10 N $H_2SO_4$. Sterilize the medium by filtration. Alternatively, autoclave separately the basal medium (pH adjusted to 2.0) and the ferrous sulfate (8.00 g $FeSO_4$ x 7 $H_2O$ in 50 ml 0.1 N $H_2SO_4$, pH not adjusted, in a sealed vessel under nitrogen gas atmosphere).

2. Note: Incubate statically without shaking.

For DSM 11478: Omit the ferrous sulfate from the medium and add 10.00 g/l elemental sulfur as substrate. For sterilization place the sulfur in screw-capped tubes, add 1-2 drops of distilled water and incubate on 3 successive days for 3 h at 90-100°C in a water bath. Before use, aseptically layer the sulfur onto the surface of autoclaved liquid basal medium. Adjust pH of complete medium to 2.0.

For DSM 24413: Omit the ferrous sulfate from the medium and add 10.00 g/l elemental sulfur as substrate. For sterilization place the sulfur in screw-capped tubes, add 1-2 drops of distilled water and incubate on 3 successive days for 3 h at 90-100°C in a water bath. Before use, aseptically layer the sulfur onto the surface of autoclaved liquid basal medium. Adjust pH of complete medium to 2.5.