

**ATCC medium: 1857 TMA Mineral medium**

(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> .....	1.0 g
Na <sub>2</sub> HPO <sub>4</sub> .....	2.78 g
KH <sub>2</sub> PO <sub>4</sub> .....	2.78 g
Hutner's Mineral Base (see below).....	20.0 ml
Tetramethylammonium perchlorate (Sigma T1140)*.....	1.0 g
Agar, Noble (BD 214230) (if needed).....	20.0 g
Distilled water.....	980.0 ml

\* filter-sterilized

Adjust for final pH 6.8. Autoclave basal medium at 121C for 15 minutes. Cool to 50C and aseptically add filter-sterilized TMA to a final concentration of 0.1%.

*Hutner's Mineral Base:*

Nitriilotriacetic acid.....	10.0 g
MgSO <sub>4</sub> .....	14.45 g
CaCl <sub>2</sub> . 2H <sub>2</sub> O .....	4.42g
Ammonium molybdate.....	9.25 mg
FeSO <sub>4</sub> . 7H <sub>2</sub> O .....	99.0 mg
Nicotinic acid.....	50.0 mg
Thiamine . HCl.....	25.0 mg
Biotin.....	0.5 mg
Metals "44" (see below) .....	50.0 ml
Distilled water.....	950.0 ml

Dissolve and neutralize the nitriilotriacetic acid in 500.0 ml distilled water with the addition of KOH pellets. Add remaining chemicals in order listed. Adjust to pH 6.8. Bring volume to 1.0 L with distilled water.

*Metals "44":*

EDTA.....	0.25 g
ZnSO <sub>4</sub> . 7H <sub>2</sub> O .....	1.1 g
FeSO <sub>4</sub> . 7H <sub>2</sub> O .....	0.5 g
MnSO <sub>4</sub> . 7H <sub>2</sub> O .....	0.154 g
CuSO <sub>4</sub> . 5H <sub>2</sub> O .....	0.04 g
Co(NO <sub>3</sub> ) <sub>2</sub> . 6H <sub>2</sub> O.....	0.025 g
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> . 10H <sub>2</sub> O .....	0.018 g
Distilled water.....	100.0 ml

Initially add a few drops of H<sub>2</sub>SO<sub>4</sub> to the distilled water to retard precipitation.