ATCC Medium: 37 Chromatium Medium

Solution 1
$CaCl_2$……0.8 g
DI Water……...1000 ml

Adjust the pH to 6.6-6.8. The medium should be dispensed into sterile 16x125 screw cap tubes. Fill the tubes to about 1/8 of an inch from the top.
Autoclave at 121ºC
Note: Media may be dispensed aseptically to avoid boil over. If not, I would recommend using rubber screw caps.

Solution 2
Heavy Metal Solution (see below)…….50.0 ml
Vitamin B_{12} Solution (see below)……...3.0 ml
Vitamin Solution (see below)…….15.0 ml
KH_2PO_4……..1.0 g
KCl……..1.0 g
NH_4Cl…….0.8 g
$MgCl_2$ x $6H_2O$……0.8 g
Sodium Ascorbate……...2.4 g
DI Water…….32.0 ml

Solution 3
$NaHCO_3$…….…….4.5 g
DI Water…….900.0 ml

Combine Solutions 2 and 3. Adjust the pH to 6.6-6.8. The medium should be dispensed into sterile 16x125 screw cap tubes. Fill the tubes to about 1/8 of an inch from the top.
Autoclave @ 121C.

Note: Media may be dispensed aseptically to avoid boil over. If not, I would recommend using rubber screw caps.

Solution 4
This may be added by the bacteriologist.

Na_2S x $9H_2O$……..…….3.0 g
DI Water……..……200.0 ml

Gas under N_2. Dispense into Hungate tubes or bottles. Generally 4-5 test tubes (8-10ml each is sufficient). Autoclave @ 121C

Heavy Metal Solution
Ethlyene Diamine Tetraacetate…….…….1.5 g

Modified Hogland trace elements solution (see below)…..6.0 ml
$FeSO_4$ x $7H_2O$..……...0.2 g
$ZnSO_4$x $7H_2O$……..……0.1 g
$MnCl_2$ x $4H_2O$……...0.02 g
DI Water…….……..1000 ml

*Dissolve EDTA first

Vitamin B_{12} Solution
Vitamin B_{12}……2.0 mg
DI Water……100.0 ml

Vitamin Solution
(May substitute ATCC Vitamin Supplement)
Biotin……..0.2 mg
Nicotinic Acid..……2.0mg
Thiamin……..1.0 mg
p-Aminobenzoic acid…….0.1mg
Pantothenic acid…….0.5 mg
Pyrodoxamine HCl……5.0 mg
DI Water……..…100.0 ml

Modified Hogland Trace Element Solution
(May substitute ATCC Trace Minerals)
$AlCl_3$……1.0 g
KI……1.0 g
KBr……...0.5 g
LiCl……..0.5 g
$MnCl_2$ x $4H_2O$…….7.0 g
H_3BO_3……11.0 g
$ZnCl_2$……..1.0 g
$CuCl_2$……..1.0 g
$NiCl_2$……1.0 g
$CoCl_2$……...1.0 g
$SnCl_2$ x $2H_2O$……..0.5 g
$BaCl_2$……..……..0.5 g
Na_2MoO_4……..…0.5 g
$NaVO_3$ x H_2O…….…….0.1 g
Se-Salt (Na selenite)……..0.5 g
DI Water…….….3600 ml

Each salt is dissolved in distilled water before mixing; pH of each solution is adjusted to below 7.0. The final pH is adjusted to 3-4. Before use, the solution is thoroughly mixed. The total final volume is 3.6 liters. The pH of the final solution is adjusted to pH 3-4. The flaky yellow precipitate which is formed after mixing transforms after a few days into a very fine white precipitate. Before use the

solution is mixed thoroughly.