

**ATCC medium: 2453 DH medium**

*Complete medium:*

Medium D (20X) (see below)..... 50.0 ml  
HEPES.....1.2 g  
Distilled deionized water.....1.0 L

Adjust pH to 8.24-8.26 then autoclave at 121C.

Leave to cool in dark cupboard overnight. The next day test the pH to make sure it is appropriate. When first prepared and autoclaved, Medium D may be slightly cloudy or turbid. It should clear as it cools and remain clear in storage. The medium should be stored in the dark for 1-2 days before using for culture work.

*Medium D--20X Concentration:*

NTA(nitrilotriacetic acid).....2.0 g  
Micronutrient solution (see below).....10.0 ml  
FeCl<sub>3</sub> solution (0.29 g/liter) .....20.0 ml  
CaSO<sub>4</sub> . 2H<sub>2</sub>O .....1.2 g  
MgSO<sub>4</sub> . 7H<sub>2</sub>O .....2.0 g  
NaCl.....0.16 g  
KNO<sub>3</sub> .....2.0 g  
NaNO<sub>3</sub> .....14.0 g  
Na<sub>2</sub>HPO<sub>4</sub> .....2.2 g  
Distilled deionized water.....1.0 L

Filter-sterilize to store for longer than one week.

*Micronutrient Solution:*

H<sub>2</sub>SO<sub>4</sub> (concentrated) .....0.5 ml  
MnSO<sub>4</sub> . H<sub>2</sub>O .....2.28 g  
ZnSO<sub>4</sub> . 7H<sub>2</sub>O .....0.50 g  
H<sub>3</sub>BO<sub>3</sub> .....0.50 g  
CuSO<sub>4</sub> . 5H<sub>2</sub>O .....0.025 g  
Na<sub>2</sub>MoO<sub>4</sub> . 2H<sub>2</sub>O.....0.025 g  
CoCl<sub>2</sub> . 6H<sub>2</sub>O .....0.045 g  
Distilled deionized water.....1.0 L