Media Recipes

18% MGM (Modified Growth Media)

Developed by Mike Dyall-Smith for growing *Haloferax volcanii* DS2

144 g NaCl
18 g $MgCl_2 \bullet 6H_2O$
21 g $MgSO_4 \bullet 7H_2O$
4.2 g KCl
8 ml 1 M Tris.Cl pH 7.5
5 g Oxoid* peptone
1 g Yeast Extract*
to 1 L dH_2O

You may have to gently heat the water to have the salts dissolve completely. Add salts slowly to a beaker with about 600 ml water and a stirbar. When everything is dissolved, bring volume up to 1 L.

If plates are desired, add 2% agar before autoclaving.

Autoclave 20 minutes. After autoclaving, add 6 ml of sterile 0.5 M $CaCl_2 \bullet 2H_2O$

*The Oxoid brand of peptone is required as the field has discovered inhibitory contaminants (bile salts) in brands such as Difco.

**Recently, the Difco brand of yeast extract has been shown to inhibit *H. volcanii* growth, though the identity of the inhibitor is unknown. However, if you have Difco yeast extract from pre-2017, it will be fine.

CM (Complete Media)

Hackett and Dassarma, 1989, for growing *Halobacterium salinarum* NRC-1

250 g NaCl
20 g $MgSO_4 \bullet 7H_2O$
10 g Oxoid peptone
3 g (Tri)sodium citrate
2 g KCl
to 1 L dH_2O

Again, you may have to gently heat the water to have the salts dissolve completely. Add salts slowly to a beaker with about 600 ml water and a stirbar. When everything is dissolved, pH to 6.8 with NaOH and bring volume up to 1 L.

Add 2% agar for plates.

Autoclave 20 minutes.

We have many more media recipes in the Schmid lab if you have specific needs or trouble finding these components. Contact Cindy at cynthia.darnell@duke.edu or darnell.cynthia@gmail.com for discussion or more recipes.