

Media for Charales

SWCN-2

Put leaf mould into a glass vessel to make a thin bottom layer, and add a mixture of black soil and river sand onto the bottom layer up to one-quarter to one-fifth from the bottom. Dampen the soil with deionized water (or distilled water). Cover the glass vessel or jar with a plastic cap or aluminum foil, and autoclave it twice with overnight rest in between (121°C, 20 min). After cooling the mixture to room temperature, pour sterilized deionized water (or sterilized distilled water) into it carefully (so as not to disturb the soil). In the case of brackish water strains, deionized water is replaced by about one-third-diluted Herbst artificial seawater (1/3 Herbst ASW).

1/3 Herbst ASW

| | |
|----------------------------------|---------|
| NaCl | 3.0 mg |
| KCl ¹⁾ | 81.4 mg |
| CaCl ₂ ¹⁾ | 132 mg |
| MgSO ₄ ¹⁾ | 660 mg |
| NaHCO ₃ ¹⁾ | 504 mg |
| Distilled water | 100 mL |

- 1) In the NIES-Collection, the amount of KCl is reduced from 81.4 mg to 80.0 mg, 132 mg CaCl₂ is replaced by 172 mg CaCl₂ · 2H₂O, 660 mg MgSO₄ is replaced by 1.35 g MgSO₄ · 7H₂O, and the amount of NaHCO₃ is reduced from 504 mg to 49.5 mg.

Reference

Okazaki, Y., Shimmen, T., Tazawa, M. 1984 Turgor regulation in a brackish charophyte, *Lamprothamnium succinctum* I. Artificial modification of intracellular osmotic pressure. *Plant Cell Physiol.*, **25**, 565-571.