

N-2 Plus Media Supplement

Catalog Number: S15101

Components:

- Bovine Insulin (2500 ug/ml)
- Human Transferrin (10,000 ug/ml)
- Putrescine (1611 ug/ml)
- Selenite (0.52 ug/ml)
- Progesterone (0.63 ug/ml)

Description: N-2 Plus Media Supplement is a modification of Bottenstein's formulation¹, which provides optimal conditions for neural stem cell expansion². It can be used as a substitute for the N-2 formulation and was optimized for neuronal cell cultures. The supplement is supplied as a 100X concentrate in water.

Storage: Store in the dark at -20°C in a manual defrost freezer.

N-2 Plus Medium Preparation

Option 1: Mix the following ingredients with water to make 500 ml of medium. Adjust the pH to 7.2. Filter the solution (2 μm filter unit) and add 5 mL of 100X sterile Penicillin-Streptomycin solution (GIBCO, Catalog # 15140-148). Store in the **dark** at 2 - 8 $^{\circ}\text{C}$ for up to 2 weeks.

Ingredient Amount

DMEM/F-12 (GIBCO, Catalog # 12500-062) 6 g
Glucose (Sigma, Catalog # G615) 0.775 g
Glutamine (Sigma, Catalog # G5763) 0.0365 g
NaHCO₃ (Sigma, Catalog # S5761) 0.845 g
N-2 Plus Media Supplement (100X) 5 mL

Option 2: Dilute 100-fold with a basal media (e.g. Neurobasal Media from GIBCO, Catalog # 21103-029) before use. Store in the **dark** at 2 - 8 $^{\circ}\text{C}$ for up to 2 weeks.

References

1. Bottenstein, J.E. 1985, *Cell Culture in the Neurosciences*, Plenum Press: New York and London.
2. Johe, K.K. *et al.*, 1996, *Genes & Development* **10**:3129 - 3140.

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