



N-2 Plus Media Supplement

Catalog Number: AR003

Size: 5 mL

Specifications and Use

- Description** ♦ N-2 Plus Media Supplement is a modification of Bottenstein's formulation,¹ which provides optimal conditions for neural stem cell expansion.² 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 deionized water.
- Storage** ♦ Store in the dark at $\leq -20^{\circ}\text{C}$ in a **manual defrost freezer**. Do not use beyond the expiration date.
- Components**
- | | |
|---------------------|-------------------------|
| ♦ Bovine Insulin | 2500 $\mu\text{g/mL}$ |
| ♦ Human Transferrin | 10,000 $\mu\text{g/mL}$ |
| ♦ Putrescine | 1611 $\mu\text{g/mL}$ |
| ♦ Selenite | 0.52 $\mu\text{g/mL}$ |
| ♦ Progesterone | 0.63 $\mu\text{g/mL}$ |
- Precautions** ♦ This product contains human transferrin. This transferrin was tested at the donor level using an FDA licensed method and found to be non-reactive for anti-HIV-1/2 and Hepatitis B surface antigen. As no testing can offer complete assurance of freedom from infectious agents, these reagents should be handled as if capable of transmitting infection.

N-2 Plus Medium Preparation

Option 1: Mix the following components with deionized or distilled 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 (Invitrogen®, Catalog # 15140-148). The medium may be stored in the **dark** at 2 - 8° C for up to 2 weeks.

<u>Component</u>	<u>Amount</u>
DMEM/F-12 (Invitrogen, Catalog # 12500-062)	6 g
Glucose (Sigma, Catalog # G6152)	0.775 g
Glutamine (Sigma, Catalog # G8540)	0.0365 g
NaHCO ₃ (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 Invitrogen, Catalog # 21103-029) before use. The medium may be stored in the **dark** at 2 - 8° 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.

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