

Product: **Gem21 NeuroPlex™ Serum-Free Supplement**
Solution
Catalog #: 400-160

Product Description

Gem21 NeuroPlex™ is a chemically defined, serum-free supplement intended for use in the culture of neuronal cells and to promote the differentiation of embryonic stem cells into pancreatic and neuronal lines. When used in conjunction with our NeuroPlex™ serum-free neuronal medium, this product obviates the need for co-culture with astrocyte feeder cells.

Applications

Differentiation of ES cells into neuron lineage (neuron and astrocytes)
Differentiation of neural stem cells into astrocytes and neurons
Optimal growth and long-term survival of rat hippocampal neurons (fetal and adult)
Survival of neurons from embryonic rat striatum, substantia nigra, septum and cortex, and neonatal rat cerebellum (fetal and adult)

Shelf life and Storage

Gem21 NeuroPlex™ is stable for 1 year when stored at $\leq -20^{\circ}\text{C}$.

Instructions for use

Gem21 NeuroPlex™ is supplied as a 50 fold concentrate. Dilute Gem21 NeuroPlex™ (50x) into the base medium at 1:50 ratio. For example, prepare 100 ml medium add 2 ml Gem21 NeuroPlex™ (50x) into 98 ml of the appropriate base medium.

Cell culture vessels must be coated with poly-D-lysine (0.05 mg/ml). If using in combination with N2 Supplement add fibronectin at a final concentration of 5-10 $\mu\text{g}/\text{ml}$ directly to the medium.

For cultivation of fetal neurons

Add Gem21 NeuroPlex™ (50x) to Neuronal Base Medium (add 0.5 mM L-glutamine) to a final concentration of 1x. For initial plating of embryonic primary hippocampal neurons 25 μM (3.7 $\mu\text{g}/\text{ml}$) glutamate must be added for the first 4 days. After initial plating no glutamate is necessary. Change media every 3-4 days and resupplement.

For cultivation of adult and postnatal neurons

Add Gem21 NeuroPlex™ (50x) and G5 Supplement (100x) to NeuroPlex™ Serum-Free Neuronal Medium (add 0.5 mM L-glutamine) to obtain a final concentration of 1x.

For serum free growth of neuroblastomas

Add Gem21 NeuroPlex™ (50x) to NeuroPlex™ Serum-Free Neuronal Medium (add 0.5 mM L-glutamine and 25 μM (3.7 $\mu\text{g}/\text{ml}$) glutamate) to a final concentration of 1x.

For *in vitro* laboratory use or further manufacturing only. Not for human use.