NeuroCult™ Proliferation Supplement (Mouse & Rat)

Supplement for expansion of mouse and rat neural stem and progenitor cells

Catalog # 05701 50 mL

Product Description

NeuroCult™ Proliferation Supplement (Mouse & Rat) is a standardized, serum-free supplement for the culture of mouse and rat neural stem and progenitor cells. NeuroCult™ Proliferation Supplement (Mouse & Rat) is designed to be combined with NeuroCult™ Basal Medium (Mouse & Rat; Catalog #05700) and appropriate cytokines (not included). NeuroCult™ Proliferation Supplement (Mouse & Rat) is optimized to maintain mouse and rat neural stem cells in culture for extended periods of time without the loss of their self-renewal, proliferation, or differentiation potential. This supplement is also a component of NeuroCult™ Proliferation Kit (Mouse & Rat; Catalog #05702).

NOTE: When preparing Complete NeuroCult™ Proliferation Medium, addition of Human Recombinant EGF (Catalog #78006.1) is required. When culturing cells obtained from adult mouse or rat, Human Recombinant bFGF (Catalog #78003.1) and Heparin Solution (Catalog #07980) are also required.

Properties

Storage: Store at -20°C.
Shelf Life: Stable until expiry date (EXP) on label.

This product contains material derived from human plasma. Donors have been tested and found negative for HIV-1 and -2, hepatitis B, and hepatitis C prior to donation. However, this product should be considered potentially infectious and treated in accordance with universal handling precautions.

Handling / Directions For Use

PREPARATION OF COMPLETE NEUROCULT™ PROLIFERATION MEDIUM

Use sterile techniques when preparing complete NeuroCult™ Proliferation Medium (NeuroCult™ Basal Medium + NeuroCult™ Proliferation Supplement). The following example is for preparing 500 mL of Complete NeuroCult™ Proliferation Medium. If preparing other volumes, adjust accordingly.

1. Thaw NeuroCult™ Proliferation Supplement (Mouse & Rat) at 37°C. Mix well.
   NOTE: A white precipitate may form after storage at -20°C. The precipitate will disappear after complete thawing at 37°C and mixing the contents.
   NOTE: Once thawed, use supplement immediately or aliquot and store at -20°C. Do not exceed the shelf life of the supplement. After thawing the aliquots, use immediately. Do not re-freeze.
2. Add 50 mL of NeuroCult™ Proliferation Supplement (Mouse & Rat) to 450 mL of NeuroCult™ Basal Medium (Mouse & Rat; Catalog #05700).
   NOTE: If not used immediately, store NeuroCult™ Proliferation Medium without cytokines at 2 - 8°C for up to 1 month.
   Do not exceed the shelf life of the individual components.
3. Cytokines are not included in the medium or supplement and must be added as follows:
   • For embryonic mouse neural stem cells:
     - 20 ng/mL Human Recombinant EGF (Catalog #78006.1)
   • For adult mouse or rat neural stem cells:
     - 20 ng/mL Human Recombinant EGF (Catalog #78006.1)
     - 10 ng/mL Human Recombinant bFGF (Catalog #78003.1)
     - 2 µg/mL Heparin Solution (Catalog #07980)
   NOTE: Following the addition of cytokines, store Complete NeuroCult™ Proliferation Medium at 2 - 8°C for up to 1 week.
   Avoid prolonged exposure to light during experiments.
   NOTE: This product does not contain antibiotics. If desired, add antibiotics and use within 1 week.
For complete instructions on culturing mouse and rat neural stem and progenitor cells with NeuroCult™, please refer to the Technical Manual: In Vitro Proliferation and Differentiation of Mouse and Rat Neural Stem and Progenitor Cells Using NeuroCult™ (Document #28704), available at www.stemcell.com or contact us to request a copy.