

NeuroCult™ NS-A Differentiation Kit (Human)

Medium for Differentiation of Human Neural Stem and Progenitor Cells

Catalog #05752

1 Kit



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FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

Product Description

The NeuroCult™ NS-A Differentiation Kit (Human)* is a standardized medium for the differentiation of human neural stem and progenitor cells into neurons, astrocytes, and oligodendrocytes.

Product Information

COMPONENT NAME	COMPONENT #	SIZE	STORAGE	SHELF LIFE
NeuroCult™ NS-A Basal Medium (Human)	05750	450 mL	Store at 2 - 8°C.	Stable until expiry date (EXP) on label.
NeuroCult™ NS-A Differentiation Supplement (Human)**†	05754	50 mL	Store at -20°C.	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.

†This component is sold as part of the NeuroCult™ NS-A Differentiation Kit (Human; Catalog #05752) and is not available for individual sale. Components of NeuroCult™ NS-A Differentiation Supplement (Human) are pretested and selected to support the growth and expansion of human neural stem and progenitor cells when combined with NeuroCult™ NS-A Basal Medium (Human). Cytokines are not included.

Preparation of Complete NeuroCult™ NS-A Differentiation Medium (Human)

Use sterile techniques to prepare complete NeuroCult™ NS-A Differentiation Medium (Basal Medium + Differentiation Supplement + cytokines).

The following example is for preparing 500 mL of complete medium. If preparing other volumes, adjust accordingly.

NOTE: Cytokines are not included in the medium or the supplement and must be added separately. This product does not contain antibiotics. If desired, add penicillin and streptomycin, and use medium within 1 week.

1. Thaw NeuroCult™ NS-A Differentiation Supplement (Human) at 37°C. Mix thoroughly.

NOTE: Once thawed, use immediately or aliquot and store at -20°C. Do not exceed the shelf life of the supplement. Do not freeze-thaw more than twice.

NOTE: A white precipitate may form upon storage at -20°C. The precipitate will disappear after complete thawing at 37°C and mixing the contents well.

2. Add 50 mL of Differentiation Supplement to 450 mL of Basal Medium.

NOTE: If not used immediately, store at 2 - 8°C for up to 1 month. Avoid repeated exposure of medium to room temperature (15 - 25°C) and light during experiments.

3. Add cytokines. STEMCELL Technologies recommends adding:

- 20 ng/mL EGF, Human, Recombinant (Catalog #02633)
- 10 ng/mL bFGF, Human, Recombinant (Catalog #02634)
- 2 µg/mL 0.2% Heparin Sodium Salt in PBS (Catalog #07980)

NOTE: If not used immediately, store complete NeuroCult™ NS-A Differentiation Medium (Human) at 2 - 8°C for up to 1 week.

Directions for Use

For complete instructions on culturing human neural stem and progenitor cells with the NeuroCult™ NS-A Differentiation Kit (Human), refer to the Technical Manual: In Vitro Proliferation and Differentiation of Human Neural Stem and Progenitor Cells Using NeuroCult™ or NeuroCult™-XF (Document #28724) available on our website at www.stemcell.com or contact us to request a copy.

* Sold under license from StemCells California, Inc. US Patent Nos. 5,750,376; 5,851,832; 5,980,885; 5,968,829; 5,981,165; 6,071,889; 6,093,531; 6,103,530; 6,165,783; 6,238,922.

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