

# N2 Supplement-A



**For Neural and Pancreatic Differentiation of Mouse and Human ES and iPS cells**

Catalog # 07152                      5 mL

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## Product Description

This product has been developed as a media supplement recommended for use in the in vitro differentiation of human or mouse embryonic stem (ES) cells and induced pluripotent stem (iPS) cells to neural and pancreatic-like cell types. May be suitable for other applications.

N2 Supplement-A may be purchased separately or as a component of the BrainPhys™ Neuronal Medium and N2-A/SM1 Kit (Catalog #05793).

## Properties

**Storage:** Store at -20°C.

**Shelf Life:** Stable until expiry date (EXP) on label.

**Contains:** 100X stock solution of N2 Supplement-A with the following in phosphate-buffered saline (PBS):

- Recombinant human insulin
- Human transferrin (iron-saturated)
- Sodium selenite
- Putrescine
- Progesterone

This product contains components derived from human plasma. Donors have been tested and found negative for hepatitis B surface antigen (HBsAg) and HIV-1 antibodies and/or HIV-1 antigen. However, this product should be considered potentially infectious and treated in accordance with universal handling precautions.

## Materials Required But Not Included

- ES-Cult™ Basal Medium-A (Catalog #05801)

## Handling / Directions For Use

For differentiation of human ES or iPS-derived neural progenitor cells to neurons, please refer to the Product Information Sheet (PIS) for BrainPhys™ (Document #DX20519), available on our website at [www.stemcell.com](http://www.stemcell.com) or contact us to request a copy.

NOTE: Protect N2 Supplement-A from prolonged exposure to light.

### PREPARATION OF COMPLETE ES-CULT™ MEDIUM (FOR DIFFERENTIATION OF MOUSE ES OR iPS CELLS)

1. Thaw N2 Supplement-A at room temperature (15 - 25°C) for 1 hour. Mix well.

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

2. Add 5 mL of N2 Supplement-A to 500 mL of ES-Cult™ Basal Medium-A (Catalog #05801).

NOTE: If not used immediately, store complete ES-Cult™ Medium at 2 - 8°C for up to 2 weeks.

## References

Lee S-HH et al. (2000) Efficient generation of midbrain and hindbrain neurons from mouse embryonic stem cells. *Nat Biotechnol* 18(6): 675–9.

Lumelsky N et al. (2001) Differentiation of embryonic stem cells to insulin-secreting structures similar to pancreatic islets. *Science* 292(5520): 1389–94.

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