PRODUCT DESCRIPTION:

Noggin is a member of the transforming growth factor-β family of ligands. Noggin antagonizes the activity of various bone morphogenetic proteins (BMP) by inhibiting access to their respective receptors. Since BMP cause human embryonic stem cells (hESC) to differentiate, noggin can be used to antagonize BMP signals and help maintain hESC in the undifferentiated state[1]. Recombinant human noggin is a single, non-glycosylated, polypeptide chain containing 206 amino acids and having a total MW of 23.1 kDa.

CYTOKINES

Product Information Sheet

Recombinant Human NOGGIN

Version 1.0.0

Catalog #02525 20 µg/vial

SOURCE:

Expressed in *E. Coli*

PURITY:

Greater than 95% as determined by RP-HPLC and SDS-PAGE. Endotoxin level is less than 0.1 ng/µg (1.0 EU/µg) of recombinant human noggin.

FORMULATION:

Lyophilized from a sterile filtered solution containing no additives.

RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1 to 1.0 mg/ml. **Note: For solubility reasons the protein should be kept at low pH.** This solution can then be diluted into other aqueous buffers and stored at 2 - 8°C for 1 week or -20°C for future use.

STABILITY AND STORAGE:

Lyophilized samples are stable at room temperature (15 – 25°C) for 2 weeks, but it is recommended to store these desiccated at -20°C to -80°C.

Reconstituted human noggin should be stored at 2 - 8°C for 1 week and for 6 months at -20°C to -80°C.

Avoid repeated freezing and thawing.

ACTIVITY:

The ED_{50} of noggin, as measured by the ability to inhibit 5 ng/ml of BMP-4 induced alkaline phosphatase production by ATCD-5 chondrogenic cells, is 0.05 – 0.08 µg/ml.

REFERENCES:

1. Xu RH, Peck RM, Li DS, Feng X, Ludwig T, Thomson JA. Basic FGF and suppression of BMP signaling sustain undifferentiated proliferation of human ES cells. Nat Methods 2(3):185-90, 2005

See Material Safety Data Sheet for more information.

THIS REAGENT IS FOR RESEARCH ONLY.
IT IS NOT TO BE ADMINISTERED TO HUMANS.

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Revised: June 2007