PRODUCT DATA SHEET

Bioworld Technology, Inc.

Recombinant Human NOGGIN (rHuNOGGIN)

Catalog Number: PR1103 Source:Escherichia coli. Quantity:5μg/20μg/1.0mg

Description

Noggin belongs to a group of diffusible proteins which bind to ligands of the TGF-β family and regulate their activity by inhibiting their access to signaling receptors. Noggin was originally identified as a BMP-4 antagonist whose action is critical for proper formation of the head and other dorsal structures. Consequently, Noggin has been shown to modulate the activities of other BMPs including BMP-2,-7,-13, and -14. Targeted deletion of Noggin in mice results in prenatal death and recessive phenotype displaying a severely malformed skeletal system. Conversely, transgenic mice over-expressing Noggin in mature osteoblasts display impaired osteoblastic differentiation, reduced bone formation, and severe osteoporosis.

Molecular Weight:

Approximately 46.2 kDa non-disulfide-linked homodimer consisting of two 206 amino acid polypeptide chains.

Purity:

>95% by SDS-PAGE and HPLC analyses.

Biological Activity:

The ED50 was determined by its ability to inhibit 5.0 ng/ml of BMP-4 induced alkaline phosphatase production by ATDC-5 chondrogenic cells. The expected ED50 for this effect is 0.05-0.08 μg/ml of NOGGIN, corresponding to a Specific Activity of □1.25 x 104 IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2μm filtered concentrated solution in 30% acetonitrile, 0.1% TFA.

AA Sequence:

M Q H Y L H I R P A P S D N L P L V D L I E H P D P I F D P K E K D L N E T L L R S L L G G H Y D P G F M A T S P P E D R P G G G G G G A A G G A E D L A E L D Q L L R Q R P S G A M P S E I K G L E F S E G L A Q G K K Q R L S K K L R R K L Q M W L W S Q T F C P V L Y A W N D L G S F W P R Y V K V G S C F S K R S C S V P E G M V C K P S K S V H L T V L R W R C Q R R G G Q R C G W I P I Q Y P I I S E C K C S C

Endotoxin:

Less than 1EU/□g of rHu NOGGIN as determined by LAL method.

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 10mM HAc to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at 2-8□C, but should be kept at -20□C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8□C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20□C to -70□C. Avoid repeated freeze/thaw cycles.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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