

Recombinant Human NOGGIN
Catalog # PBG10334**Specification**

Recombinant Human NOGGIN - Product Information**Recombinant Human NOGGIN - Additional Information****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. The interplay between TGF- β ligands and their natural antagonists has major biological significance during development processes, in which cellular response can vary considerably depending upon the local concentration of the signaling molecule. 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. Recombinant human Noggin is a 46 kDa disulfide-linked homodimer (120-10C) consisting of two 206 amino acid polypeptide chains. Monomeric glycosylated Noggin migrates at an apparent molecular weight of approximately 28.0-33.0 kDa by SDS PAGE analysis under reducing conditions.

Biological Activity

Determined by its ability to inhibit 5.0 ng/ml of BMP-4 induced alkaline phosphatase production by ATDC chondrogenic cells. The expected ED_{50} for this effect is 2.0-3.0 ng/ml of Noggin.

Authenticity

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

Endotoxin

Endotoxin level is <0.1 ng/ μ g of protein (<1 EU/ μ g).

Protein Content

Verified by UV Spectroscopy and/or SDS-PAGE gel.

Storage

-20°C

Precautions

Recombinant Human NOGGIN is for research use only and not for use in diagnostic or therapeutic procedures.

Recombinant Human NOGGIN - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Recombinant Human NOGIN - Images