

Recombinant Murine Noggin Protein

Catalog Number: PROTP97466-1

Overview

Product Name	Recombinant Murine Noggin Protein
Description	Noggin belongs to a group of diffusible proteins which bind to ligands of the TGF-beta family and regulate their activity by inhibiting their access to signaling receptors. The interplay between TGF-beta 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 murine Noggin is a 46.4 kDa disulfide-linked homodimer consisting of two 206 amino acid polypeptide chains.
Size	Various Sizes
Tag	
Form	Solid; white powder or thin/invisible film
Source	E. Coli
Formulation	Protein concentration verified by UV Spectroscopy and/or SDS-PAGE gel.

Concentration

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Purity

Biological Activity And Protein Authenticity

Determined by its ability to inhibit 5.0 ng/ml of BMP-4 induced alkaline phosphatase production by ATDC5 chondrogenic cells. The expected **ED₅₀** for this effect is 1.0-2.0 ng/ml of Noggin.

Usage

Boster's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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