9051 Mira Mesa Blvd, #910094
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Noggin Human, Sf9

Noggin Human Recombinant, Sf9
GRF0278

Product Overview

Name	Noggin Human, Sf9
Description	
Noggin Human Recombinant, Sf9	
Accession (Primary)	Q13253
Synonyms	
SYM1, SYNS1, NOG.	
Introduction	
Nogginwhich is encoded by the NOG gene, binds and inactivates members of the transforming growth factor-beta (TGF-beta) superfamily signaling proteins, such as bone morphogenetic protein-4 (BMP4). By diffusing through extracellular matrices more efficiently than members of the TGF-beta superfamily, noggin may play and important role in creating morphogenic gradients. Noggin appears to have pleiotropic effect, both early in development as well as in later stages. Noggin was originally isolated from Xenopus based on its ability to restore normal dorsal-ventral body axis in embryos that had been artificially ventralized by UV treatment. The results of the mouse knockout of noggin suggest that it is involved in numerous developmental processes, such as neural tube fusion and joint formation. There are several dominant human NOG mutations in unrelated families with proximal symphalangism (SYM1) and multiple synostoses syndrome (SYNS1). All NOG mutations altered evolutionarily conserved amino acid residues. The amino acid sequence of human noggin is highly homologous to that of Xenopus, rat and mouse.	
Source	
Sf9, Baculovirus cells.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH7.4 and 0.02 % Tween-20 and 5% trehalose.	
Stability	
Lyophilized Noggin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Noggin should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles .	
Purity	

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Greater than 95.0% as determined by: (a) Analysis by RP-HPLC (b) Analysis by SDS-PAGE.

Amino acid sequence

QHYLHIRPAP SDNLPLVDLI EHPDPIFDPK EKDLNETLLR SLLGGHYDPG FMATSPPEDR PGGGGGAAGG AEDLAELDQL LRQRPSGAMP SEIKGLEFSE GLAQGKKQRL SKKLRRKLQM WLWSQTFCPV LYAWNDLGSR FWPRYVKVGS CFSKRSCSVP EGMVCKPSKS VHLTVLRWRC QRRGGQRCGW IPIQYPIISE CKCSC.

Biological Activity

Measured by its ability to inhibit BMP-4-induced alkaline phosphatase production by ATDC5 mouse chondrogenic cells ans was fount to be 0.04 - 0.2 µ g/mL in the presence of 50 ng/mL of Recombinant Human BMP - 4.

Solubility

It is recommended to reconstitute the lyophilized Noggin in sterile 18MΩ-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Precautions

Noggin Human, Sf9 is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (Q13253)