


Human Noggin Protein, His tag

Cat #: PRP1942

Size: 5 µg/20 µg/100 µg/1 mg

Product Information

	Product Name: Human Noggin Protein, His tag		
REF	Catalog Number: PRP1942	LOT	Lot Number: Refer to product label
	Purity: > 98 % as determined by SDS-PAGE		
	Storage: Store at -20°C		Preparation method: E.coli
	Shipping: The product is shipped at ambient temperature.		

Background: The secreted polypeptide Noggin, encoded by the Noggin 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 have a principal role in creating morphogenic gradients. Noggin appears to have pleiotropic effect, both early in development as well as in later stages. It 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. Recently, several dominant human Noggin mutations in unrelated families with proximal symphalangism (SYM1) and multiple synostoses syndrome (SYNS1) were identified; both SYM1 and SYNS1 have multiple joint fusion as their principal feature, and map to the same region (17q22) as Noggin. All Noggin mutations altered evolutionarily conserved amino acid residues. The amino acid sequence of human Noggin is highly homologous to that of *Xenopus*, rat and mouse.

Sequence: Amino acid sequence derived from Human Noggin (Q13253) (Gln28-Cys232) was expressed with 6×His tag.

Protein length: The recombinant Human Noggin Protein consists of 206 amino acids and predicts a molecular mass of 23.2 kDa.

Biological Activity: Testing in Progress.

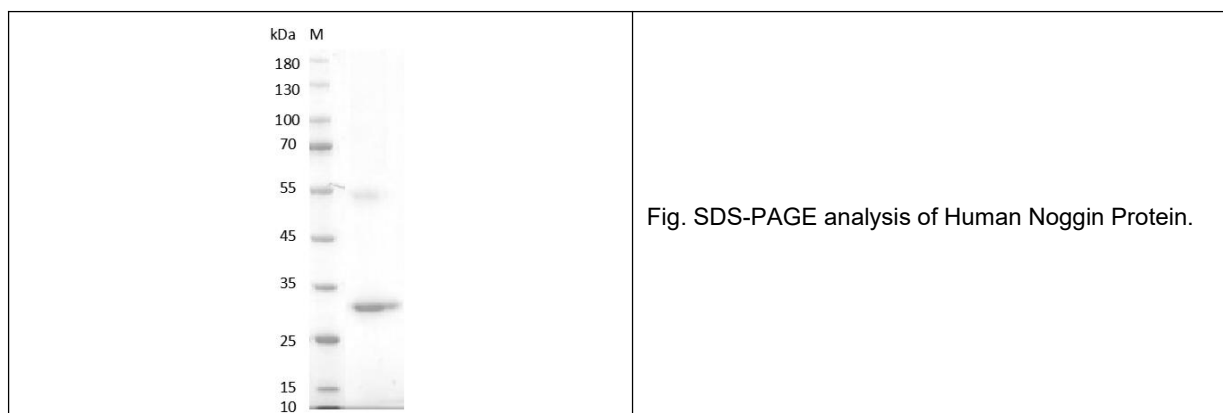
Endotoxin: <0.1 EU per µg of the protein by the LAL method.

Formulation: Lyophilized from sterile 20 mM Tris, 50 mM NaCl, pH8.0.

Storage Instructions: Lyophilized protein product should be stored desiccated below -20°C. Upon reconstitution, the protein

should be stored at 4°C between 2-7 days and for future use below -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized protein using the buffer we provided not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.



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