


Human Noggin protein

Cat #: PRP100077

Size: 20µg/100µg/1mg

Product Information

	Product Name: Human Noggin protein		
REF	Catalog Number: PRP100077	LOT	Lot Number: Refer to product label
	Purity: > 85 % as determined by SDS-PAGE.		
	Storage: Store at -20°C		Preparation method: Human Cells
	Shipping: The product is shipped at ambient temperature.		

Background: Noggin is a secreted protein involved at multiple stages of vertebrate embryonic development including neural induction and is known to exert its effects by inhibiting the bone morphogenetic protein (BMP)-signaling pathway. It binds several BMPs with very high (picomolar) affinities, with a marked preference for BMP2 and BMP4 over BMP7. By binding tightly to BMPs, Noggin prevents BMPs from binding their receptors. Noggin binds the bone morphogenetic proteins (BMP) such as BMP-4 and BMP-7, and inhibits BMP signaling by blocking the molecular interfaces of the binding epitopes for both type I and type II receptors. Interaction of BMP and its antagonist Noggin governs various developmental and cellular processes, including embryonic dorsal-ventral axis, induction of neural tissue, formation of joints in the skeletal system and neurogenesis in the adult brain. Noggin plays a key role in neural induction by inhibiting BMP4, along with other TGF-β signaling inhibitors such as chordin and follistatin. Mouse knockout experiments have demonstrated that noggin also plays a crucial role in bone development, joint formation, and neural tube fusion.

Sequence: Amino acid sequence derived from human NOG (NP_005441.1) (Met1-Cys232) was expressed with five amino acids (DDDDK) at the C-terminus.

Protein length: The recombinant human NOG consists 211 amino acids and predicts a molecular mass of 23.7 kDa.

Formulation: Lyophilized from sterile PBS, pH 7.4.

Storage Instructions: Lyophilized Human Noggin protein product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -18°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 Human Noggin protein in sterile ddH₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

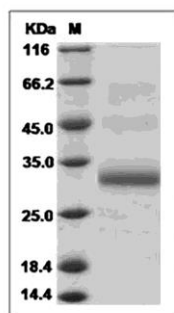


Fig. SDS-PAGE analysis of Human Noggin protein.

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