

Recombinant Human Noggin

CATALOG #:	4675-20	20 µg
	4675-100	100 µg
	4675-1000	1 mg
LOT #:		
SOURCE:	<i>E.coli</i>	
PURITY:	>95% by SDS-PAGE and HPLC Endotoxin level is <0.1 ng per µg of Noggin.	
MOL. WEIGHT:	23.1 kDa	
FORM:	Sterile filtered and lyophilized with no additives	

RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1 to 1.0 mg/ml. **Note: Due to solubility reasons the protein should be kept at low pH.** This solution can then be diluted into other aqueous buffers and stored at 4°C for 1 week or -20°C for future use.

STORAGE CONDITIONS:

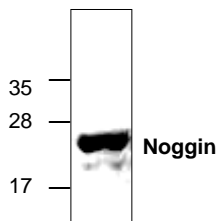
The lyophilized protein is best-stored desiccated below 0°C. Reconstituted human Noggin should be stored at working aliquots at -20°C.

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. 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 23.1 kDa non-disulfide-linked homodimer consisting of a total of 206 amino acid residues.

ACTIVITY:

Determined by its ability to inhibit 5 ng/ml of BMP-4-induced alkaline phosphatase production by ATDC chondrogenic cells. The expected ED₅₀ for the effect is 0.05-0.08 µg/ml of Noggin.



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Purity of recombinant human Noggin (2 µg) was analyzed by reduced SDS-PAGE electrophoresis.

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