

Noggin Murine E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RBG20107005	(5 µg)
Species: Murine	RBG20107020	(20 µg)
	RBG20107100	(100 µg)

Description

Noggin belongs to a group of diffusible proteins that 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 was 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 a 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.

Amino Acid Sequence

MQHYLHIRPA PSDNLPLVDL IEHPDPIFDP KEKDLNETLL RSLGGHYDP GFMATSPPED RGGGGGPAG GAEDLAELDQ
LLRQRPSGAM PSEIKGLEFS EGLAQGKKQR LSKLRRKLQ MWLWSQTFCP VLYAWNDLGS RFWPRYVKVG SCFSKRSCSV
PEGMVCKPSK SVHLTVLRWR CQRRGGQRCG WIPYIPIIS ECKCSC

Source

E. coli

Purity

95%

Biological Activity

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.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Note: Due to solubility reasons the protein should be kept at low pH. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

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