

Recombinant Mouse Noggin Protein

Product Information

Product Name	Cat#	Size
Recombinant Mouse Noggin Protein	92262ES08	5 µg
	92262ES60	100 µg
	92262ES76	500 µg

Product Description

Noggin is a bone morphogenetic protein (BMP) antagonist expressed in Spemann's organizer. It inhibits TGF-β family ligands and preventing them from binding to their corresponding receptors. Noggin was originally found as a BMP-4 antagonist, and then has been shown to modulate the activities of other BMPs (BMP-2, 7, 13 and 14). Noggin is very highly conserved among vertebrates, such that mature human Noggin shares 99%, 99%, 98%, 97% and 89% aa sequence identity with mouse, rat, bovine, equine and chicken Noggin, respectively. Secreted noggin protein regulates bone morphogenetic protein activity during development. The Role of the BMP Signaling Antagonist Noggin in the Development of Prostate Cancer Osteolytic Bone Metastasis. Lack of expression of the BMP antagonist noggin by osteoinductive, carcinoma-derived cell lines is a determinant of the osteoblast response induced by their bone metastases. In contrast, osteolytic, carcinoma-derived cell lines express noggin constitutively.

Product Properties

Synonyms	NOG, SYM1, symphalangism 1 (proximal), synostoses (multiple) syndrome 1, SYNS1, SYNS1A
Accession	P97466
GeneID	18121
Source	E.coli-derived human Noggin protein, Gln28-Cys232, with an N-terminal Met.
Molecular Weight	Approximately 46.4 kDa.
AA Sequence	MQHYLHIRPA PSDNPLPLVDL IEHPDPIFDP KEKDLNETLL RSLLGGHYDP GFMATSPPED RPGGGGGPAG GAEDLAELDQ LLRQRPSGAM PSEIKGLEFS EGLAQGKKQR LSKKLRRKLQ MWLWSQTFCP VLYAWNDLGS RFWPRYVKVG SCFSKRSCSV PEGMVCKPSK SVHLTVLRWR CQRRGGQRCG WIPIQYPIIS ECKCSC
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	>95% by SDS-PAGE and HPLC analyses.
Biological Activity	The ED ₅₀ as determined by inhibiting BMP-4-induced alkaline phosphatase production of murine ATDC5 cells is less than 2 ng/mL, corresponding to a specific activity of > 5.0 × 10 ⁵ IU/mg in the presence of 5 ng/mL BMP-4. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1 µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 30% acetonitrile, 0.1% TFA. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	Reconstitute in 10 mM HAC to a concentration less than 0.25 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20 °C for 1 year.

1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 °C under sterile conditions after reconstitution.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!