

## Recombinant Murine Noggin(rMuNoggin)

Catalog No: #72809

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## Description

Product Name	Recombinant Murine Noggin(rMuNoggin)
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	> 95 % by SDS-PAGE and HPLC analyses.
Species Reactivity	Ms
Target Name	rm Noggin
Accession No.	accession:P97466 GeneID:18121
Uniprot	P97466
GeneID	18121;
Calculated MW	Approximately 46.4 kDa, a disu
SDS-PAGE MW	Sterile Filtered White lyophil
Target Sequence	MQHYLHIRPA PSDNLPLVDL IEHPDPIFDP KEKDLNETLL RSLLGGHYDP GFMATSPPED RPGGGGGPAG GAEDLAELDQ LLRQRPSGAM PSEIKGLEFS EGLAQGKKQR LSKKLRRKLQ MWLWSQTFCP VLYAWNDLGS RFWPRYVKVG SCFSKRSCSV PEGMVCKPSK SVHLTVLRWR CQRRGGQRCG WIPIQYPIIS ECKCSC
Formulation	Lyophilized from a 0.2 mg/ml filtered concentrated solution in 30 % acetonitrile, 0.1 % TFA.
Storage	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze thaw cycles.

## Background

Noggin encoded by the NOG gene, was first isolated from *Xenopus*, having the function of inducing secondary axis formation in frog embryos. It inhibits TGF- $\beta$  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). Additionally, it has pleiotropic effect, both in early development and later stages. 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. In recent report, proximal symphalangism (SYM1) and multiple synostoses syndrome (SYNS1) have relation with the mutant of evolutionarily conserved amino acid residues of Noggin. Mature mouse Noggin shares 99 % and 83 % a.a. sequence identity with human and *Xenopus* Noggin, respectively.

## References

1. Davis SW and Camper SA. 2007. *Dev Biol*, 305: 145-60.
2. Zhu W, Kim J, Cheng C, et al. 2006. *Bone*, 39: 61-71.
3. Oxley CD, Rashid R, Goudie DR, et al. 2008. *Horm Res*, 69: 221-6.
4. Cooper GM, Usas A, Olshanski A, et al. 2009. *Plast Reconstr Surg*, 123: 94S-103S.
5. Bayramov AV, Eroshkin FM, Martynova NY, et al. 2011. *Development*, 138: 5345-56.

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Note: This product is for in vitro research use only