Growth Factor Data Sheet

GoldBio growth factors are manufactured for RESEARCH USE ONLY and cannot be sold for human consumption!

Noggin belongs to a group of diffusible proteins that bind to ligands of the TGF-β (Transforming Growth Factor) family and regulate their activity by inhibiting their access to signaling receptors. Noggin was originally identified as a BMP4 antagonist whose action is critical for proper formation of the head and other dorsal structures. Noggin has been shown to modulate the activities of other BMPs including BMP2, 7, 13, and 14. Targeted deletion of noggin in mice results in prenatal death and recessive phenotype displaying a severely malformed skeletal system. Transgenic mice over-expressing noggin in mature osteoblasts display impaired osteoblastic differentiation, reduced bone formation and severe osteoporosis.

Catalog Number **Product Name**	**1180-09** **Noggin, Human** Recombinant Human NOG Noggin
Source	*Escherichia coli*
MW	~46.2 kDa (2x206 amino acid) (A non-disulfide linked homodimer consisting of two 206 amino acid polypeptide chains)
Sequence	MQHYLHIRPA PSDNLPLVDL IEHPDPIFDP KEKDLNETLL RSLLGGHYDP GFMATSPPED RPGGGGGAAG GAEDLAELDQ LLRQRPSGAM PSEIKGLEFS EGLAQGKKQR LSKKLRRKLQ MWLWSQTFCP VLYAWNDLGS RFWPRYVKVG SCFSKRSCSV PEGMVCKPSK SVHLTVLRWR CQRRGGQRCG WIPIQYPIIS ECKCSC
Accession Number	Q13253
Purity	>95% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by inhibiting BMP-4-induced alkaline phosphatase production of murine ATDC5 cells is less than 3.0 ng/ml, corresponding to a specific activity of > 3.3×10^5 IU/mg in the presence of 5 ng/ml rHuBMP-4.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 10mM HCl to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at -80 °C. Further dilutions should be made in appropriate buffered solutions.