Overview

Synonyms	NOG
Description	**Noggin**, also known as NOG, is a homodimeric glycoprotein that bindsto and modulates the activity of TGF-beta family ligands. It is expressed in condensing cartilage and immature chondrocytes. Noggin antagonizes bone morphogenetic protein (BMP) activities by blocking epitopes on BMPs needed for binding to their receptors. Noggin has been shown to be involved in many developmental processes, such as neural tube formation and joint formation. During development, Noggin diffuses through extracellular matrices and forms morphogenic gradients, regulating cellular responses dependent on the local concentration of the signaling molecule. Recombinant **Mouse Noggin Fc Chimera** produced in *CHO* cells is a polypeptide chain containing 446 amino acids with the C-termimal Mouse IgG1 Fc fragment. A fully biologically active molecule, rhNoggin has a molecular mass of 59 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.
Source	*CHO*
Biological Activity	ED_{50}<20ng/ml, measured in a bioassay using ATDC5 cells in the presence of 10ng/ml Mouse BMP-4.
Sequence	LRAAPAGGQH YLHIRPAPSD NLPLVDLIEH PDPIFDPKEK DLNETLLRSL LGGHYDPGFM ATSPPEDRPG GGGGPAGGAE DLAELDQLLR QRPSGAMPSE IKGLEFSEGL AQGKKQRLSK KLRRKLQMWL WSQTFCPVLY AWNDLGSRFW PRYVKVGSCF SKRSCSVPEG MVCKPSKSVH LTVLRWRCQR RGGQRCGWIP IQYPIISECK CSCIEGRMDD KTHTCPPCPA PELLGGPSVF LFPPKPKDTL MISRTPEVTC VVVDVSHEDP EVKFNWYVDG VEVHNAKTKP REEQYNSTYR VVSVLTVLHQ DWLNGKEYKC KVSNKALPAP IEKTISKAKG QPREPQVYTL PPSREEMTKN QVSLTCLVKG FYPSDIAVEW ESNGQPENNY KTTPPVLDSD GSFFLYSKLT VDKSRWQQGN VFSCSVMHEA LHNHYTQKSL SLSPGK

Properties

Measured Molecular Weight	59 kDa, observed by reducing SDS-PAGE.
Purity	> 97% as analyzed by reducing SDS-PAGE.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS.
Reconstitution	Reconstituted in ddH_2O or PBS at 100 μg/ml.
Endotoxin Level	< 0.2 EU/μg, determined by LAL method.
Storage	Lyophilized recombinant **Mouse Noggin** remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Mouse Noggin should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. **Avoid repeated freeze-thaw cycles.**

India Contact:
Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura,
Delhi – 110034 (INDIA).
Mobile: +91-9810521400, Ph: +91-11-42208000
Email: customerservice@lifetechindia.com
Web: www.lifetechindia.com