DATASHEET
Version 20181206

Noggin Fc Chimera, Mouse

Cat. No.: Z03379-50

Size: 50.0 ug

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 at GenScript.

Amino Acid Sequence:

00001 LRAAPAGGQH YLHIRPAPSD NLPLVDLIEH PDPIFDPKEK
00041 DLNETLLRSL LGGHYDPGFM ATSPPEDRPG GGGGPAGGAE
00081 DLAELDQLLR QRPSGAMPSE IKGLEFSEGL AQGKKQRLSK
00121 KLRRKLQMWL WSQTFCPVLY AWNDLGSRFW PRYVKVGSCF
00161 SKRSCSVPEG MVCKPSKSVH LTVLRWRCQR RGGQRCGWIP
00201 IQYPIISECK CSCIEGRMDD KTHTCPPCPA PELLGGPSVF
00241 LFPPKPKDTL MISRTPEVTC VVVDVSHEDP EVKFNWYVDG
00281 VEVHNAKTKP REEQYNSTYR VVSVLTVLHQ DWLNGKEYKC
00321 KVSNKALPAP IEKTISKAKG QPREPQVYTL PPSREEMTKN
00361 QVSLTCLVKG FYPSDIAVEW ESNGQPENNY KTTPPVLDSD
00401 GSFFLYSKLT VDKSRWQQGN VFSCSVMHEA LHNHYTQKSL
00441 SLSPGK

Source: *CHO*

Biological Activity: ED_{50}<20ng/ml, measured in a bioassay using ATDC5 cells in the presence of 10ng/ml Mouse BMP-4.

Molecular Weight: 59 kDa, observed 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.

Purity: > 97% as analyzed by reducing SDS-PAGE.

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.

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