DATASHEET
Version 20181206

Noggin Fc Chimera, Human

Cat. No.: Z03380-50

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 Human Noggin Fc Chimera produced in *CHO* cells is a polypeptide chain containing 438 amino acids with the C-termimal human IgG1 Fc fragment. A fully biologically active molecule, rhNoggin has a molecular mass of 57 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 QHYLHIRPAP SDNLPLVDLI EHPDPIFDPK EKDLNETLLR
00041 SLLGGHYDPG FMATSPPEDR PGGGGGAAGG AEDLAELDQL
00081 LRQRPSGAMP SEIKGLEFSE GLAQGKKQRL SKKLRRKLQM
00121 WLWSQTFCPV LYAWNDLGSR FWPRYVKVGS CFSKRSCSVP
00161 EGMVCKPSKS VHLTVLRWRC QRRGGQRCGW IPIQYPIISE
00201 CKCSCIEGRM DDKTHTCPPC PAPELLGGPS VFLFPPKPKD
00241 TLMISRTPEV TCVVVDVSHE DPEVKFNWYV DGVEVHNAKT
00281 KPREEQYNST YRVVSVLTVL HQDWLNGKEY KCKVSNKALP
00321 APIEKTISKA KGQPREPQVY TLPPSREEMT KNQVSLTCLV
00361 KGFYPSDIAV EWESNGQPEN NYKTTPPVLD SDGSFFLYSK
00401 LTVDKSRWQQ GNVFSCSVMH EALHNHYTQK SLSLSPGK
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Source: *CHO*

Biological Activity: ED_{50}<60ng/ml, measured in a bioassay using ATDC5 cells in the presence of 10ng/ml human BMP-4.

Molecular Weight: 57 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 Human Noggin remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human 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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