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Noggin

Catalog # PVGS1551

Product Information

Primary Accession	P97466
Species	Mouse
Sequence	Leu20-Cys232
Purity	> 97% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	ED_{50}
Expression System	CHO
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 μg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for 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.

Additional Information

Gene ID	18121
Other Names	Noggin, Nog
Target Background	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.

Protein Information

Name	Nog

Function	Essential for cartilage morphogenesis and joint formation. Inhibitor of bone morphogenetic proteins (BMP) signaling which is required for growth and patterning of the neural tube and somite (PubMed:9585504, PubMed:9603738). Inhibits chondrocyte differentiation through its interaction with GDF5 and, probably, GDF6 (By similarity).
Cellular Location	Secreted.
Tissue Location	Expressed in condensing cartilage and immature chondrocytes.