

Recombinant Human Noggin Protein

Cat. No. 110910

DESCRIPTION

Expression system	<i>E. coli</i>
Amino acid sequence	Gln28-Cys232, Accession # Q13253
Molecular mass	Recombinant Human Noggin Protein, a noncovalently-linked non-glycosylated homodimer, each subunit containing 205 amino acid residues, has a predicted molecular mass of approximately 46.1 kDa.

SPECIFICATIONS

Purity	> 95% by SDS-PAGE gel and HPLC analyses.
Endotoxin	Less than 0.1 EU/μg of rHuNoggin as determined by LAL test.
Activity	Determined by its ability to inhibit 5.0 ng/ml of BMP-4 induced alkaline phosphatase production by ATDC-5 chondrogenic cells. The expected ED ₅₀ for this effect is 2.0-3.0 ng/ml of Noggin.
Formulation	Lyophilized from a 0.22 μm filtered solution in acetonitrile, TFA. See CoA for details.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Reconstitute in sterile distilled water to a concentration of 0.1-1.0 mg/mL. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

SHIPPING & STORAGE

Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Please use a manual defrost freezer and avoid repeated freeze-thaw cycles. ● Lyophilized protein should be stored at ≤ -20°C, stable for 12 months after receipt. ● Reconstituted protein solution can be stored at 2-8°C for 1 month. ● Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.

BACKGROUND

Human Noggin is a secreted glycoprotein encoded by the *NOG* gene, belonging to the bone morphogenetic protein (BMP) antagonist family. It plays a crucial role in regulating embryonic development, tissue homeostasis and cell differentiation.

Noggin exerts its biological function by specifically binding to BMPs, inhibiting their signaling pathways, thereby regulating the formation of bones, cartilage, nerves and other tissues. Abnormal expression of Noggin is closely associated with developmental disorders and certain tumors.

As an important regulatory factor, it is widely used in biomedical research and tissue engineering, providing important support for the study of developmental mechanisms and related disease treatments.

Version202605.1

For research, laboratory or further evaluation purposes. NOT for Human Use.

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