

Animal-Free Noggin Protein, Human (His)

Cat. No.:	HY-P700143AF
Synonyms:	rHuNoggin; NOGGIN
Species:	Human
Source:	E. coli
Accession:	Q13253 (Q28-C232)
Gene ID:	9241
Molecular Weight:	Approximately 24 kDa

PROPERTIES

AA Sequence	<p> MQHYLHIRPA PSDNLPPLVDL IEHPDPIFDP KEKDLNETLL RSL LGGHYDP GFMATSPPED RPGGGGGAAG GAEDLAELDQ LLRQRPSGAM PSEIKGLEFS EGLAQGKKQR LSKKLRRKLQ MWLWSQTFCP VLYAWNDLGS RFWPRYVKVG SCFSKRSCSV PEGMVCKPSK SVHLTVLRWR CQRRGGQRCG WIPIQYPIIS ECKCSC </p>
Biological Activity	Measure by its ability to inhibit BMP-4-induced alkaline phosphatase production by ATDC5 cells. The ED ₅₀ for this effect is <0.05 µg/mL in the presence of 50 ng/mL of recombinant human BMP-4.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 0.1% sarkosyl in 1X PBS, pH 8.0.
Endotoxin Level	<0.1 EU per 1 µg of the protein by the LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Noggin protein emerges as a crucial inhibitor in the intricate realm of bone morphogenetic proteins (BMP) signaling, playing indispensable roles in neural tube and somite growth, as well as contributing to the intricate processes of cartilage morphogenesis and joint formation. Operating through its homodimeric structure, Noggin establishes a significant interaction with GDF5, and likely GDF6, exerting its inhibitory influence on chondrocyte differentiation. This molecular
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interplay underscores Noggin's pivotal position in regulating key aspects of embryonic development, emphasizing its nuanced involvement in sculpting the intricate patterns and structures critical for proper growth and morphogenesis.

Caution: Product has not been fully validated for medical applications. For research use only.

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