



Product Data Sheet

**Human Recombinant Noggin Protein**

Catalog Number: ORF.GF.NOGGIN

Product Details	
<b>Product Name</b>	Human Recombinant Noggin Protein
<b>Catalog Numbers</b>	ORF.GF.NOGGIN-10, ORF.GF.NOGGIN-50, ORF.GF.NOGGIN-100, ORF.GF.NOGGIN-500, ORF.GF.NOGGIN-1000
<b>Sizes</b>	10 µg, 50 µg, 100 µg, 500 µg, 1000 µg
<b>Species</b>	Human
<b>UniProt ID</b>	Q13253
<b>Product Form</b>	Lyophilized

Product Description	Product Image
<p>Noggin is a secreted glycoprotein that plays a critical role in embryonic development by modulating bone morphogenetic protein (BMP) signaling. It binds directly to BMPs such as BMP2, BMP4, and BMP7, preventing them from interacting with their receptors and thereby inhibiting downstream SMAD signaling. This antagonism is essential for proper patterning of the neural tube, somites, and other tissues, as well as for regulating skeletal development and joint formation.</p> <p>Noggin is expressed in the notochord, neural plate, and other key developmental regions, where it contributes to the balance of BMP activity required for cell fate decisions. Its biological activity is tightly controlled in vivo by spatial and temporal expression patterns and interactions with extracellular matrix components. In experimental models, recombinant Noggin is widely used to promote neural induction, maintain pluripotency in stem cell cultures, and suppress mesodermal and endodermal differentiation, making it a vital tool in developmental biology and regenerative medicine research.</p>	

*For research applications only. Not for diagnostic or therapeutic use.*



Product Specifications		
<b>Protein Description</b>	205-amino acid mature Noggin protein consisting of residues Gln28 to Cys232	
<b>Expression System</b>	Available Upon Request	
<b>Amino Acid Sequence</b>	QHYLHIRPAP SDNLPLVDLI EHPDPIDPK EKDLNETLLR SLLGGHYDPG FMATSPPEDR PGGGGGAAGG AEDLAELDQL LRQRPSGAMP SEIKGLEFSE GLAQGKKQL SKLRRKLQM WLWSQTFCPV LYAWNDLGSR FWPRYVKVGS CFSKRSCSVP EGMVCKPSKS VHLLVLRWRC QRRGGQRCGW IPIQYPISE CKCSC	
<b>Molecular Weight</b>	SDS-PAGE	23 kDa (Expected)
<b>Purity</b>	SDS-PAGE	> 95%
<b>Endotoxin</b>	LAL	< 1 EU/microgram
<b>Bioactivity</b>	Determined by ability to inhibit BMP-4 induced alkaline phosphatase production by ATDC-5 chondrogenic cells.	Biologically Active

Product Preparation	
<b>Shipping Temperature</b>	Ambient
<b>Form</b>	Lyophilized
<b>Reconstitution Instructions</b>	Reconstitute with sterile deionized water or sterile PBS + 0.1% BSA.

Storage and Stability		
	Temperature	Storage Time
<b>Lyophilized Form</b>	-20°C to -80°C	12 months
<b>Reconstituted Form</b>	2°C to 8°C	1 month
<b>Reconstituted Form</b>	-20°C to -80°C	3 months

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