

Mouse Noggin Protein

Cat. No. NOG-MM201



Description

Source	Recombinant Mouse Noggin Protein is expressed from HEK293 with hFc tag at the C-terminus. It contains Gln28-Cys232.
Accession	P97466
Molecular Weight	The protein has a predicted MW of 49.83 kDa. Due to glycosylation, the protein migrates to 55-65 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 90% as determined by Bis-Tris PAGE > 90% as determined by HPLC

Formulation and Storage

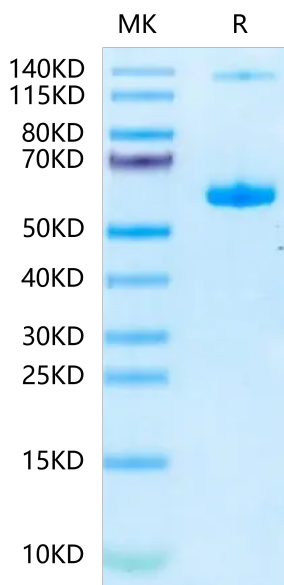
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Noggin is an antagonist of bone morphogenetic proteins (BMP), being indispensable for certain developmental events. Noggin expression positively correlated with EGFR expression in both GC cell line models and The Cancer Genome Atlas human GC cohort. Targeting EGFR and its downstream pathways diminished cell proliferation which was promoted by Noggin. Noggin promotes the proliferation of GC cells by upregulating EGFR and enhancing a vicious circle formed by β catenin, EGFR, ERK and Akt.

Assay Data

Bis-Tris PAGE



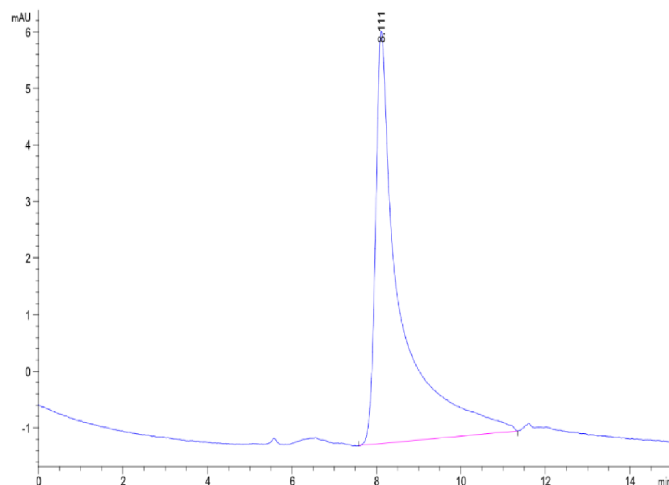
Mouse Noggin on Bis-Tris PAGE under reduced condition. The purity is greater than 90%.

SEC-HPLC

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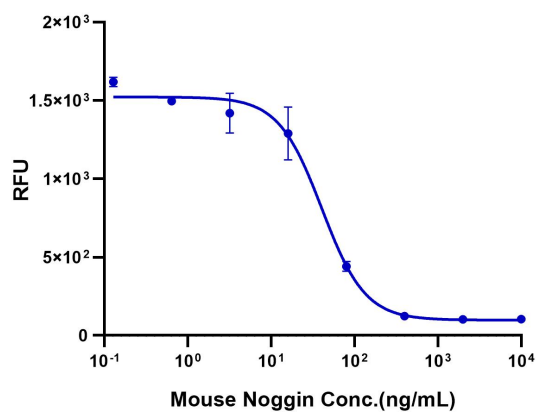
Assay Data



The purity of Mouse Noggin is greater than 90% as determined by SEC-HPLC.

Cell Based Assay

Recombinant Mouse Noggin Bioactivity



Measured by its ability to inhibit BMP-4-induced alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED for this effect is 10 - 80 ng/ml in the presence of 50 ng/mL of Recombinant Human BMP-4.