Noggin/NOG (C-6His), Mouse, Recombinant

Cat. No. : PCK263

General Information

Synonyms	Noggin;Nog
Species	Mouse
Expression host	Human Cells
Sequence	Gln28-Cys232
Accession	P97466
Mol mass	23.9 kDa
Expiration date	12 months

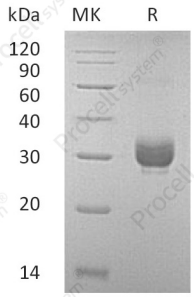
Product feature

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin (EU/μg)	< 0.1
Storage	Lyophilized protein should be stored at -5~-20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at -5~-20°C for 3 months.
Shipping	Ice bag
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, 5 mM EDTA, 5% Trehalose, pH 7.4.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 μg/mL. Dissolve the lyophilized protein in sterile water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Background

Noggin is a secreted homodimeric glyco Protein that is an antagonist of bone morphogenetic Proteins (BMPs). Mouse Noggin cDNA encodes a 232 amino acid (aa) residue precursor Protein with 19 aa residue putative signal peptide that is cleaved to generate the 213 aa residue mature Protein which is secreted as a homodimeric glyco Protein. Secreted Noggin probably remains close to the cell surface due to its binding of heparin-containing proteoglycans. Noggin binds some BMPs such as BMP4 with high affinity and others such as BMP7 with lower affinity. It antagonizes BMP bioactivities by blocking epitopes on BMPs that are needed for binding to both type I and type II Receptors. Noggin is expressed in defined areas of the adult central nervous system and peripheral tissues such as lung, skeletal muscle and skin. During culture of human embryonic stem cells (hESC) or neural stem cells under certain conditions, addition of Noggin to antagonize BMP activity may allow stem cells to proliferate while maintaining their undifferentiated state, or alternatively, to differentiate into dopaminergic neurons.

SDS-PAGE



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