# Product Name: Recombinant Mouse Noggin (C-6His) Catalog #: PHM1235

**C** EnkiLife

## **Summary**

Name Noggin/NOG

**Purity** Greater than 95% as determined by reducing SDS-PAGE

**Endotoxin level** <1 EU/μg as determined by LAL test.

Construction Recombinant Mouse Noggin is produced by our Mammalian expression

system and the target gene encoding Gln28-Cys232 is expressed with a 6His

tag at the C-terminus.

Accession # P97466

Host Human Cells

**Species** Mouse

Predicted Molecular Mass 23.9 KDa

Formulation Lyophilized from a 0.2 µm filtered solution of PBS, 5mM EDTA, 5% Trehalose, pH

7.4.

Shipping The product is shipped at ambient temperature. Upon receipt, store it

immediately at the temperature listed below.

**Stability&Storage** Lyophilized protein should be stored at  $\leq$  -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  $\leq$  -20°C for 3 months.

**Reconstitution** Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is

not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles. Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

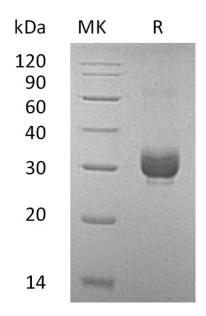
### **SDS-PAGE** image

Web: https://www.enkilife.com E-mail: order@enkilife.com techsupport@enkilife.com Tel: 0086-27-87002838

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### **Alternative Names**

Noggin; Nog

### **Background**

Noggin is a secreted homodimeric glycoprotein 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 glycoprotein. 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.

#### Note

For Research Use Only, Not for Diagnostic Use.