


CA1076	<b>HumanKine™ Noggin</b>			
	<b>Prod. No. S2334-10UG</b> For Research Use Only Not intended for use in humans or animals	<b>lot #: PRXXXXXX XXXX</b>	Orders & Support Web	866 372-7442 support@primorigen.com www.primorigen.com

<b>Pack Size</b>	10 µg
<b>Species</b>	Human
<b>Expression System</b>	HEK 293*
	Animal-derived product free
<b>Molecular Mass</b>	65 kDa homodimer, glycosylated
<b>Activity</b>	Typically 20 to 100 ng/mL
<b>Purity</b>	≥ 95%
<b>Endotoxin</b>	≤ 1 EU/µg

### Background:

Recombinant human Noggin, expressed in engineered human cells. Noggin is a 65 kDa, disulfide linked homodimeric glycoprotein and belongs to the Noggin protein family. It has a primary structure consisting of an acidic amino-terminal and a cysteine-rich carboxyterminal. In mammals, Noggin is expressed primarily in the central nervous system. Noggin binds to and inactivates bone morphogenetic proteins including BMP-2, BMP-4 and BMP-7, preventing the activation of BMP receptors. Noggin is essential for proper skeletal development and enhances the survival and induces the growth of nerve and muscle cells.

*Note: Representative data are shown below (not Lot-specific).*

### Formulation:

Lyophilized in PBS.

### Reconstitution:

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile PBS containing 0.1% endotoxin-free recombinant human serum albumin.

### Storage and Stability:

Lyophilized products are stable for one year at -20°C to -80°C from date of receipt. Store only at -20°C to -80°C in working aliquots. Avoid repeated freeze-thaw cycles.

### Quality Control Testing

#### Assay:

The specific activity was determined by dose-dependent inhibition of rhBMP4 induced alkaline phosphate production by ATDC5 cells.

#### Purity Confirmation:

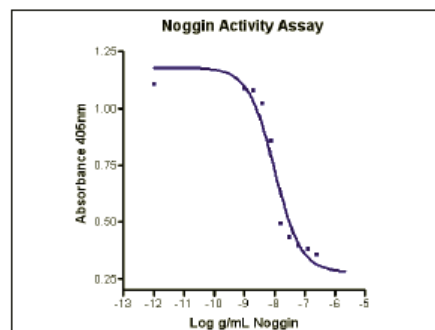
The protein was resolved by SDS-polyacrylamide gel electrophoresis and the gel was stained with Coomassie blue.

#### References:

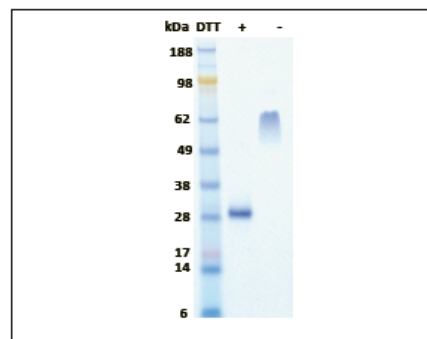
Gazzerro E., et al (2007) Curr Opin Pharm. 7, 325-333  
 Ito H., et al (1999) Biochem Biophys Res Comm. 260, 240-244

*\*All HumanKine™ cytokines are expressed in HEK 293 cells.  
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## A. Activity Assay



## B. SDS-PAGE



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