

Noggin/NOG/SYM1/SYNS1, Human, Recombinant

Cat. No. : PCK365

General Information

Synonyms	NOG; Noggin;SYM1;symphalangism 1 (proximal);synostoses (multiple) syndrome 1; SYNS1;SYNS1A
Species	Human
Expression host	E.coli
Sequence	MQHYLHIRPAPSDNLPLVDLIEHPDPIFDPKEKDLNETLLRSLLGGHYDPGFMATSPPEDRPG GGGGAAGGAEDLAELDQLLRQPSGAMPSEIKGLEFSEGLAQGKKQRLSKLRRKLQMWLWS QTFCPVLYAWNDLGSRFWPRYVKVGSCFSKRSCSVPEGMVCKPSKSVHLTVLRWRCQRRGG QRCGWIPYIPISECKCSC with polyhistidine tag at the C-terminus.
Accession	Q13253.1
Tag	His-tag at the C-terminus
Mol mass	24 kDa
Expiration date	12 months
Bio activity	Measure by its ability to inhibit BMP-4-induced alkaline phosphatase production by ATDC5 cells. The ED50 for this effect is < 0.05 µg/mL in the presence of 50 ng/mL of recombinant human BMP-4.

Product feature

Purity	> 98% as determined by SDS-PAGE. Ni-NTA chromatography
Endotoxin (EU/µg)	< 0.1
Storage	Lyophilized protein should be stored at -5~-20°C for 1 year. Upon reconstitution, store at 2-8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10% FBS, 5% HSA or 5% trehalose solution), protein aliquots should be stored at -5~-20°C or -80°C for 3-6 months.
Shipping	Ice bag
Formulation	The protein was lyophilized from a 0.2 µm filtered solution containing 1 × PBS, pH 7.4.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile water to a concentration not less than 100 µg/mL. Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.

Background

Noggin is a 46.2 kDa bioactive protein, which exists as a disulfide-linked homodimer (each chain 23.1 kDa). Noggin binds members of the transforming Growth Factors-beta (TGF beta) superfamily signaling proteins, such as bone morphogenetic protein-4 (BMP-4), which inactivates their activities. As an extracellular antagonist of BMP proteins, Noggin involves in the development of many body tissues, including nerve tissue, muscles, and bones. In addition, Noggin is able to inhibit chondrocyte differentiation through its interaction with GDF5.

SDS-PAGE

