Recombinant Human Noggin (His, Flag)

Information

Gene ID	9241
Accession #	Q13253
Alternate Names	NOGG_HUMAN, NOG
Source	HEK293
Protein sequence	QHYLHIRPAPSDNLPLVDLIEHPDPIFDPKEKDLNETLLRSLLGGHYDPGFMATSPPEDRPGGGGGAAGGAE DLAELDQLLRQRPSGAMPSEIKGLEFSEGLAQGKKQRLSKKLRRKLQMWLWSQTFCPVLYAWNDLGSRFW PRYVKVGSCFSKRSCSVPEGMVCKPSKSVHLTVLRWRCQRRGGQRCGWIPIQYPIISECKCSC
Tag	C-His & C-Flag
M.Wt	The protein has a calculated MW of 23.04 KDa.
Appearance	Solution protein
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 36 months from date of receipt, -20 to -70°C as supplied
Concentration	1 mg/mL
Formulation	Supplied as a 0.2 μm filtered solution in PBS, pH7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This s olution can be diluted into other aqueous buffers.
Biological Activity	Testing in progress.
Shipping Condition	Shipping with dry ice.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Quality Control

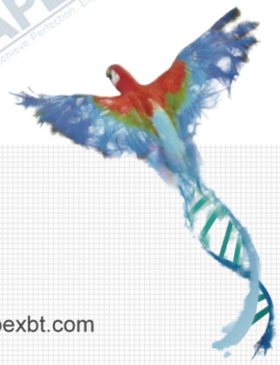
Purity	> 95 % by SDS-PAGE.
Endotoxin	Less than 1.0 EU/μg as determined by LAL method.

Description

Noggin encoded by the NOG gene, was first isolated from Xenopus, having the function of inducing secondary axis formation in frog embryos. It inhibits TGF-β family ligands and preventing them from binding to their corresponding receptors. Noggin was originally found as a BMP-4 antagonist, and then has been shown to modulate the activities of other BMPs (BMP-2, 7, 13 and 14). Additionally, it has pleiotropic effect, both in early development and later stages. The results of the mouse knockout of noggin suggest that it is involved in numerous developmental processes, such as neural tube fusion and joint formation. In recent report, proximal symphalangism (SYM1) and multiple synostoses syndrome (SYNS1) have relation with the mutant of evolutionarily conserved amino acid residues of Noggin. Mature human Noggin shares 99 %, 99 %, 98 %, 97 % and 89 % a.a. sequence identity with mouse, rat, bovine, equine and chicken Noggin, respectively.

Reference:

1. Davis SWandCamper SA. 2007. Dev Biol, 305: 145-60.
2. Zhu W, Kim J, Cheng C, et al. 2006. Bone, 39: 61-71.
3. Oxley CD, Rashid R, Goudie DR, et al. 2008. Horm Res, 69: 221-6.
4. Bayramov AV, Eroshkin FM, Martynova NY, et al. 2011. Development, 138: 5345-56.
5. Secondini C, Wetterwald A, Schwaninger R, et al. 2011. PLoS One, 6: e16078.



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