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Product datasheet for AR09512PU-L

Sonic hedgehog (SHH) (24-197, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Sonic hedgehog (SHH) (24-197, His-tag) human recombinant protein, 0.5 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MCGPGRGFGK RRHPKKLTPL AYKQFIPNVA EKTLGASGRY EGKISRNSER FKELTPNYNP DIIFKDEENT GADRLMTQRC KDKLNALAIS VMNQWPGVKL RVTEGWDEDG HHSEESLHYE GRAVDITTSD RDRSKYGMLA RLAVEAGFDW VYYESKAHIH CSVKAENSVA AKSGGLEHHH HHH
Tag:	His-tag
Predicted MW:	20.7 kDa
Concentration:	lot specific
Purity:	>95% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 0.1 M NaCl
Preparation:	Liquid purified protein
Protein Description:	Recombinant human SHH protein, fused to His-tag at C-terminus was expressed in E.coli and purified by using conventional chromatography techniques.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_000184
Locus ID:	6469
UniProt ID:	Q15465
Cytogenetics:	7q36.3
Synonyms:	Sonic hedgehog protein, HHG-1

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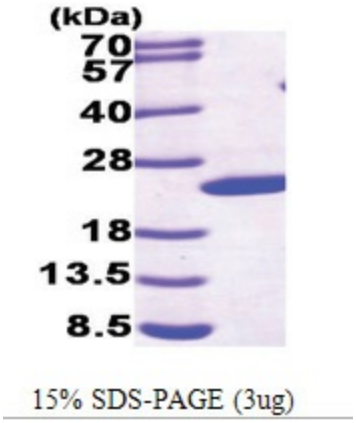
Summary: This gene encodes a protein that is instrumental in patterning the early embryo. It has been implicated as the key inductive signal in patterning of the ventral neural tube, the anterior-posterior limb axis, and the ventral somites. Of three human proteins showing sequence and functional similarity to the sonic hedgehog protein of Drosophila, this protein is the most similar. The protein is made as a precursor that is autocatalytically cleaved; the N-terminal portion is soluble and contains the signalling activity while the C-terminal portion is involved in precursor processing. More importantly, the C-terminal product covalently attaches a cholesterol moiety to the N-terminal product, restricting the N-terminal product to the cell surface and preventing it from freely diffusing throughout the developing embryo. Defects in this protein or in its signalling pathway are a cause of holoprosencephaly (HPE), a disorder in which the developing forebrain fails to correctly separate into right and left hemispheres. HPE is manifested by facial deformities. It is also thought that mutations in this gene or in its signalling pathway may be responsible for VACTERL syndrome, which is characterized by vertebral defects, anal atresia, tracheoesophageal fistula with esophageal atresia, radial and renal dysplasia, cardiac anomalies, and limb abnormalities. Additionally, mutations in a long range enhancer located approximately 1 megabase upstream of this gene disrupt limb patterning and can result in preaxial polydactyly. [provided by RefSeq, Jul 2008]

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane

Protein Pathways: Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer

Product images:



15% SDS-PAGE (3ug)