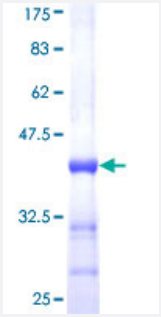
SHH (Human) Recombinant Protein (Q01)

Catalog # H00006469-Q01 Size 25 ug, 10 ug

Applications



Specification

Product Description	Human SHH partial ORF (NP_000184, 181 a.a. - 280 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	IHCSVKAENSVAAKSGGCFPGSATVHLEQGGTKLVKDLSPGDRVLAADDQGRLLYSDFLTFLDR DDGAKKVFYVIETREPRERLLLTAAHLLFVAPHNDS
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	36.74
Interspecies Antigen Sequence	Mouse (97); Rat (98)
Preparation Method	*in vitro* wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — SHH

Entrez GeneID	6469
GeneBank Accession#	NM_000193
Protein Accession#	NP_000184
Gene Name	SHH
Gene Alias	HHG1, HLP3, HPE3, MCOPCB5, SMMCI, TPT, TPTPS
Gene Description	sonic hedgehog homolog (Drosophila)
Omim ID	120200 142945 147250 174500 600725
Gene Ontology	Hyperlink
Gene 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
Other Designations	sonic hedgehog

Pathway

- Basal cell carcinoma
- Hedgehog signaling pathway
- Pathways in cancer

Disease

- Cleft Lip
- Cleft Palate
- Genetic Predisposition to Disease
- Holoprosencephaly
- Kidney Failure
- Parkinson disease
- Sleep Apnea
- Syndrome
- Thyroid Neoplasms