9F, No. 108, Jhouzih St.,Taipei, Taiwan
Tel: + 886-2-8751-1888 Fax: + 886-2-6602-1218
E-mail: sales@abnova.com

Datasheet

SHH (Human) Recombinant Protein

Catalog Number: P3553

Regulation Status: For research use only (RUO)

Product Description: Human SHH (NP_000184, 24 a.a. - 197 a.a.) partial recombinant protein with His tag expressed in *Escherichia coli*.

Sequence:
MCGPGRGFGKRRHPKKLTPLAYKQFIPNVAEKTLGAS
GRYEGKISRNSERFKELTPNYNPDIIFKDEENTGADRL
MTQRCKDKLNALAISVMNQWPGVKLRVTEGWDEDGH
HSEESLHYEGRAVDITTSDRDRSKYGMLARLAVEAGF
DWVYYESKAHIHCSVKAENSVAAKSGGLEHHHHHH

Host: Escherichia coli

Theoretical MW (kDa): 20.7

Applications: SDS-PAGE
(See our web site product page for detailed applications information)

Protocols: See our web site at http://www.abnova.com/support/protocols.asp or product page for detailed protocols

Form: Liquid

Preparation Method: *Escherichia coli* expression system

Purification: Conventional Chromatography

Concentration: 1 mg/mL

Purity: > 95% by SDS-PAGE

Storage Buffer: In 20 mM Tris-HCl buffer, 0.1 M NaCl, pH 8.0 (10% glycerol).

Storage Instruction: Store at 2°C to 8°C for 1 week.
For long term storage, aliquot and store at -20°C to -80°C.
Aliquot to avoid repeated freezing and thawing.

Entrez GeneID: 6469

Gene Symbol: SHH

Gene Alias: HHG1, HLP3, HPE3, MCOPCB5, SMMCI, TPT, TPTPS

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]