# **PRODUCT INFORMATION**

**Expression system** E.coli

**Domain** 25-198aa

**UniProt No.** Q62226

NCBI Accession No. NP\_033196

### **Alternative Names**

Sonic hedgehog protein, Dsh, Hhg1, Hx, Hx13, Sonic hedgehog protein HHG 1, HHG1, HLP 3, HLP3, Holoprosencephaly 3, HPE 3, HPE3, MCOPCB5, SHH, SMMC I, SMMCI, Sonic Hedgehog (Drosophila) homolog, sonic hedgehog homolog (Drosophila), Sonic hedgehog homolog, TPT, TPTPS.

## **PRODUCT SPECIFICATION**

### Molecular Weight

20.8 kDa (183aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT

**Purity** > 95% by SDS-PAGE

**Endotoxin level** < 1 EU per 1ug of protein (determined by LAL method)

**Tag** His-Tag

Application SDS-PAGE

#### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

#### Description

SHH is one of three proteins in the mammalian signaling pathway family called hedgehog, the others being desert hedgehog (DHH) and Indian hedgehog (IHH). This protien is the best studied ligand of the hedgehog



signaling pathway. It plays a key role in regulating vertebrate organogenesis. SHH contain amino-terminal signal peptides and apparently function as secreted proteins involved in the mediation of various cell-cell interactions. Recombinant mouse SHH protein, fused to His-tag at C-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

#### Amino acid Sequence

MCGPGRGFGK RRHPKKLTPL AYKQFIPNVA EKTLGASGRY EGKITRNSER FKELTPNYNP DIIFKDEENT GADRLMTQRC KDKLNALAIS VMNQWPGVKL RVTEGWDEDG HHSEESLHYE GRAVDITTSD RDRSKYGMLA RLAVEAGFDW VYYESKAHIH CSVKAENSVA AKSGGLEHHH HHH

#### **General References**

15% SDS-PAGE (3ug)+

Bak M., et al. (2004) Brain Res Mol Brain Res. 126(2):207-11. Dassule HR., et al. (2000) Development. 127(22):4775-85.

