

## Product datasheet for **TP726623**

### Sonic Hedgehog (SHH) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human SHH (C-6His)
Species:	Human
Expression cDNA Clone or AA Sequence:	Cys24-Gly197
Tag:	C-6His
Buffer:	Lyophilized from a 0.2 um filtered solution of PBS,5% Trehalose,pH7.4.
Note:	Recombinant Human Sonic Hedgehog is produced by our Mammalian expression system and the target gene encoding Cys24-Gly197 is expressed with a 6His tag at the C-terminus.
Storage:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Stability:	12 months from date of despatch
Locus ID:	6469
UniProt ID:	<a href="#">Q15465</a>
Synonyms:	Sonic Hedgehog Protein; SHH; HHG-1
Summary:	Sonic Hedgehog Homolog (SHH) belongs to a three-protein family called hedgehog. The other two family members are Indian Hedgehog (IHH) and Desert Hedgehog (DHH). Hedgehog proteins are key signaling molecules in embryonic development. SHH is expressed in various embryonic tissues and plays critical roles in regulating the patterning of many systems, such as limbs and brain. SHH also plays an important role in adult, including the division of adult stem cells and the development of certain cancers and other diseases. Human SHH is expressed as a 45kDa precursor, and undergoes a series of processing during secretion. After the removal of the signal peptide, a protease within the C-terminal domain catalyzes the cleavage of SHH into a 20 kDa N-terminal signaling domain (SHH-N) and a 25 kDa C-terminal domain (SHH-C). SHH-N has the "all signaling" capability. SHH-N binds to the 12 pass transmembrane protein Patched (Ptc) on cell surface, which releases the repression of the activity of Smoothed (Smo), a G-protein coupled receptor, by Ptc.
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane



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