



Recombinant Protein Technical Manual
Recombinant Human Sonic Hedgehog/SHH Protein
(Active)
RPES4771

Product Data:

Product SKU: RPES4771

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: Q15465

Protein Information:

Molecular Mass: 19.69 kDa

AP Molecular Mass: 19 kDa

Tag:

Bio-activity: Immobilized Human SHH at 1µg/ml(100 µl/well) can bind Human BOC-His(Cat: PKSH032123).

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

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.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of 20mM PB, 100mM NaCl, 1mM DTT, pH 7.5.

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: Sonic Hedgehog Protein; SHH; HHG; SHH

Immunogen Information:

Sequence: Cys24-Gly197

Background:

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.