

Recombinant Human SHH

Catalog No : PMK2198

Known As: Sonic Hedgehog Protein; SHH; HHG-1

PROPERTIES

Description	Recombinant Human Sonic Hedgehog is produced by our E.coli expression system and the target gene encoding Cys24-Gly197 is expressed.
Accession	Q15465
Formulation	Lyophilized from a 0.2 μm filtered solution of 20mM PB, 100mM NaCl, 1mM DTT, pH 7.5.
Size	10μg/50μg/500μg/1mg
Purity	> 95%
Endotoxin	< 0.01 EU/μg as determined by LAL test.
Predicted Mol Mass	19.69 KDa
Apparent Mol Mass	19 KDa, reducing conditions
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
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.

NOTE: The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested applications of our products are not recommendations to use our products in violation of any patent or as a license. We cannot be responsible for patent infringements or other violations that may occur with the use of this product.