HUMAN SHH (C-6HIS) PROTEIN

Cat.#: 12061

Product Name: Human SHH (C-6His) Protein

Size : 10 µg, 50 µg and 100 µg

Synonyms: Sonic Hedgehog Protein;SHH;HHG-1

Target: SHH

UNIPROT ID: Q15465

Description: 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.

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 Smoothened (Smo), a G-protein coupled receptor, by Ptc.

Species/Host: HEK293

Molecular Weight: 20.4 KDa

Molecular Characterization: Not available

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

Formulation & Reconstitution: Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

Storage & Shipping: Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC APPLICATIONS

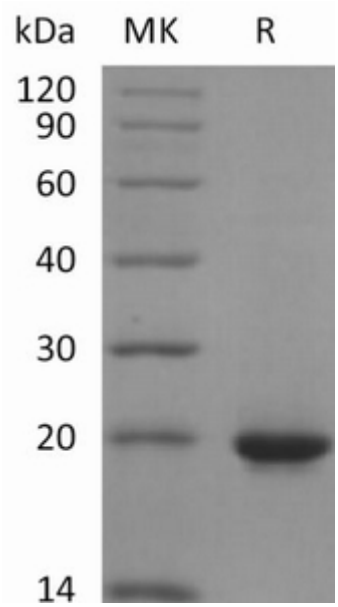

Figure 1. Greater than 95% as determined by reducing SDS-PAGE.