Recombinant Human Sonic Hedgehog/SHH Protein (aa 1-197, His Tag)

Catalog Number: PKSH031645

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

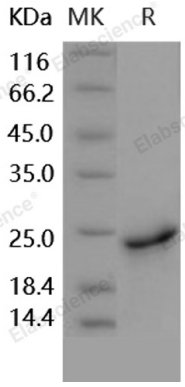
Description

Species	Human
Source	HEK293 Cells-derived Human Sonic Hedgehog/SHH protein Met 1-Gly 197, with an C-terminal His
Calculated MW	21 kDa
Observed MW	24 kDa
Accession	Q15465
Bio-activity	Measured by its ability to induce alkaline phosphatase production by C3H10T1/2 mouse embryonic fibroblast cells. The ED_{50} for this effect is typically 2-10 μg/mL.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Sonic HedgeHog; also known as sonic hedgehog protein; belongs to the hedgehog family. It cannot be detected in adult tissues while can be found in fetal intestine; liver; lung; and kidney. Sonic HedgeHog is a protein that is vital in guding the early embryo. It has been associated as the major inductive signal in patterning of the ventral neural tube; the anterior-posterior limb axis; and the ventral somites. Sonic HedgeHog intercellular signal is essential for a various patterning events during development: signal produced by the notochord that induces ventral cell fate in the neural tube and somites; and the polarizing signal for patterning of the anterior-posterior axis of the developing limb bud. Sonic HedgeHog binds to the patched receptor; which functions in association with smoothened; to activate the transcription of target genes. In the absence of sonic HedgeHog; patched receptor represses the constitutive signaling activity of smoothened. Sonic HedgeHog also regulates another factor; the gli oncogene. Defects in sonic hedgehog can cause microphthalmia isolated with coloboma type 5; triphalangeal thumb-polysyndactyly syndrome and holoprosencephaly type 3.

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