

Recombinant Mouse SHH Protein (Ile24-Gly198), His-tagged

Cat. No. SHH-852M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse SHH Protein (NP_033196.1) (Ile24-Gly198) was produced by HEK293 Cells expression system. This protein was expressed with a polyhistidine tag at the C-terminus.
Species	Mouse
Source	HEK293
ProteinLength	Ile24-Gly198
Description	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 guiding 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

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	holoprosencephaly type 3.
Predicted N Terminal	Ile 24
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant mouse SHH consists of 186 amino acids and predicts a molecular mass of 21.1 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 95 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name [Shh sonic hedgehog \[Mus musculus \]](#)

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Official Symbol	SHH
Synonyms	SHH; sonic hedgehog; Hx; Dsh; Hhg1; Hxl3; M100081; 9530036O11Rik;
Gene ID	20423
mRNA Refseq	NM_009170
Protein Refseq	NP_033196
UniProt ID	B3GAP8

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