

Recombinant Mouse Shh protein

Cat. No. Shh-1316M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Shh protein was expressed in Escherichia coli.
Species	Mouse
Source	E.coli
ProteinLength	176
Description	Sonic hedgehog is one of three proteins in the mammalian signaling pathway family called hedgehog, the others being desert hedgehog (DHH) and indian hedgehog (IHH). As the hh homologues, SHH has been found to have the most critical roles in development. It acts as a morphogen involved in patterning many systems, including the limb and midline structures in the brain, spinal cord, the thalamus by the zona limitans intrathalamica and the teeth. There SHH undergoes auto-processing to generate a 20 kDa (residues 24 - 197) N-terminal signaling domain (SHH-N) and a 25 kDa (residues 198-462) C-terminal domain with no known signaling role.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by inducing alkaline phosphatase production of murine C3H10T1/2 cells is 0.5 - 1.0 µg/ml.
Molecular Mass	Approximately 19.8 kDa, a single non-glycosylated polypeptide chain containing 176 amino acids.

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AA Sequence	IVIGPGRGFGKRRHPKKLTPLAYKQFIPNVAEKTGASGRYEGKITRNSERFKELTPN YNPDIIKFDEENTGADRLMTQRCKDKLNALAISVMNQWPGVKLRVTEGWDEDDGHHS EESLHYEGRAVDITTSRDRSKYGMLARLAVEAGFDWVYYESKAHIHCSVKAENSV AAKSGG
Endotoxin	Less than 1 EU/μg of rMuSHH as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	Shh
Official Symbol	Shh
Synonyms	SHH; sonic hedgehog; sonic hedgehog protein; HHG-1; short digits; hemimelic extra toes; Hx; Dsh; Hhg1; Hxl3; M100081; 9530036O11Rik;
Gene ID	20423

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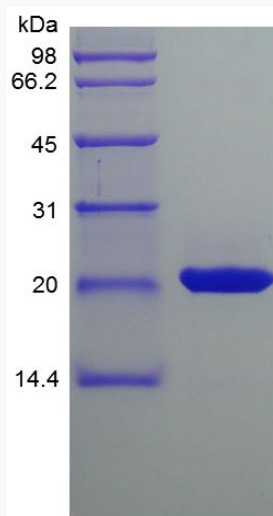
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mRNA Refseq NM_009170

Protein Refseq NP_033196

UniProt ID Q62226

SDS-PAGE of Shh-
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