

Active Recombinant Mouse Shh Protein (C25II) (175 aa)

Cat. No. Shh-311S **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse Sonic Hedgehog (C25II) (rmShh) produced in E. coli is a single non-glycosylated polypeptide chain containing 175 amino acids. A fully biologically active molecule, rmShh has a molecular mass of 19.7 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.
Species	Mouse
Source	E.coli
ProteinLength	175
Description	Sonic Hedgehog (Shh) is a member of the Hedgehog (Hh) family of highly conserved proteins which are widely represented throughout the animal kingdom. In mammal, there are three related Hh proteins, Sonic (Shh), Desert (Dhh) and Indian (Ihh). They share a high degree of amino-acid sequence identity (e.g., Shh and Ihh are 93% identical). Sonic Hedgehog plays a role in cell growth, cell specialization, and the normal shaping (patterning) of the body. Shh is also important for development of the brain and spinal cord (central nervous system), eyes, limbs, and many other parts of the body.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 2.0 µg/mL, measured by its ability to induce alkaline phosphatase production by C3H/10T1/2 (CCL-226) Cells, corresponding to a specific activity of > 500 units/mg.

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Molecular Mass	19.7 kDa, observed by reducing SDS-PAGE.
AA Sequence	IIGPGRGFGKRRHPKKLTPLAYKQFIPNVAEKTLGASGRYEGKITRNSERFKELTPNY NPDIIFKDEENTGADRLMTQRCKDKLNALAISVMNQWPGVKLRVTEGWDEDGHHSE ESLHYEGRAVDITTSRDRSKYGMLARLAVEAGFDWVYYESKAHIHCSVKAENSV AKSGG
Endotoxin	< 0.2 EU/μg, determined by LAL method.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Storage	Lyophilized recombinant mouse Sonic Hedgehog (C25II) (rmShh) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rmShh should be stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 μg/mL.

GENE INFORMATION

Gene Name	Shh sonic hedgehog [<i>Mus musculus</i>]
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
mRNA Refseq	NM_009170

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Protein Refseq	NP_033196
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UniProt ID	Q62226
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