

## Recombinant Mouse Sonic Hedgehog/SHH Protein

### Product Information

Product Name	Cat#	Size
Recombinant Mouse Sonic Hedgehog/SHH Protein	92589ES08	5 µg
	92589ES60	100 µg
	92589ES76	500 µg

### Product Description

Sonic Hedgehog (Shh) is expressed in embryonic tissues that are critical for the patterning of the developing central nervous system, somite, and limb. Shh-N is highly conserved, sharing >98% aa identity between mouse, human, rat, canine, porcine, and chicken Shh-N. The Hedgehog (Hh) family of secreted proteins plays an essential role in metazoan development, and defects in the Hh pathway lead to congenital abnormalities such as holoprosencephaly and certain forms of cancer. Shh is the most widely expressed of the many ligands, and much of what is known about vertebrate Hh signaling stems from studies on Shh. Though similar in many ways to the DrosophilaHh pathway, several features of vertebrate Hh signaling make it unique.

### Product Properties

<b>Synonyms</b>	HHG1, HHG-1, HLP3, HPE3, MCOPCB5
<b>Accession</b>	Q62226
<b>GeneID</b>	20423
<b>Source</b>	E.coli-derived mouse Shh protein, Cys25-Gly198 (C25IVI) .
<b>Molecular Weight</b>	Approximately 19.8 kDa.
<b>AA Sequence</b>	IVIGPGRGFG KRRHPKKLTP LAYKQFIPNV AEKTLGASGR YEGKITRNSE RFKELTPNYN PDIIFKDEEN TGADRLMTQR CKDKLNLALAI SVMNQWPGVK LRVTEGWDED GHHSEESLHY EGRAVDITTS DRDRSKYGML ARLAVEAGFD WVYYESKAHI HCSVKAENSV AAKSGG
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	> 95% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	The ED <sub>50</sub> as determined by inducing alkaline phosphatase production of murine C3H10T1/2 cells is 0.5 - 1.0 µg/mL. Fully biologically active when compared to standard.
<b>Endotoxin</b>	< 1.0 EU per 1µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
<b>Reconstitution</b>	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°C. Further dilutions should be made in appropriate buffered solutions.

### Shipping and Storage

The products are shipped with ice pack and can be stored at -20 °C for 1 year.

1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 °C under sterile conditions after reconstitution.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

## **Cautions**

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!