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# SHH Mouse

*Sonic Hedgehog Mouse Recombinant*
*CYK0531*

## Product Overview

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|---|---|
| Name | SHH Mouse |
| **Description** | |
| Sonic Hedgehog Mouse Recombinant | |
| Accession (Primary) | Q62226 |
| **Synonyms** | |
| SHH, HHG-1, HHG1, Sonic hedgehog protein. | |
| **Introduction** | |
| Recombinant Mouse Sonic Hedgehog is part of a small group of secreted proteins that are vital for development in both vertebrates and invertebrates. 3 mammalian hedgehog genes (sonic, desert, Indian) share about 60% homology. The Mouse Sonic Hedgehog is 99% homologous to the human gene. 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 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. 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 exhibits both floor plate- and motor neuron-inducing activity. Mutations in a long-range Sonic HedgeHog enhancer located in an intron of the limb region 1 gene result in preaxial polydactyly. | |
| **Source** | |
| Escherichia Coli. | |
| **Physical Appearance** | |
| Sterile Filtered White lyophilized (freeze-dried) powder. | |
| **Formulation** | |
| Lyophilized from a concentrated (1mg/ml) solution in water containing 10mM Na 2 PO 4 pH-7.5. | |
| **Stability** | |
| Lyophilized Mouse Sonic HedgeHog although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Sonic HedgeHog should be stored at 4°C between 2-7 days and for future use | |

below -18°C. Please prevent freeze-thaw cycles.

**Purity**

Greater than 97.0% as determined by SDS-PAGE.

**Amino acid sequence**

MIIGPGRGFG KRRHPKKLTP LAYKQFIPNV AEKTLGASGR YEGKITRNSE RFKELTPNYN PDIIFKDEEN TGADRLMTQR CKDKLNALAI SVMNQWPGVK LRVTEGWDED GHHSEESLHY EGRAVDITTS DRDRSKYGML ARLAVEAGFD WVYYESKAHI HCSVKAENSV AAKSGG.

**Biological Activity**

Determined by the dose-dependent induction of alkaline phosphatase production by C3H/10T1/2 (CCL-226) fibroblasts and is typically 0.48-0.72 µg/ml.

**Solubility**

It is recommended to reconstitute the lyophilized Sonic Hedgehog in sterile 18MΩ-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Precautions**

SHH Mouse is for research use only and not for use in diagnostic or therapeutic procedures.

## Target Information: ( Q62226 )