

Recombinant Murine Sonic Hedgehog

#R00575

Size: 5 µg/100 µg/500 µg

Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
 - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
 - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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.

AA Sequence

IVIGPGRGFGKRRHPKKLTPLAYKQFIPNVAEKTLGAS
GRYEGKITRNSERFKELTPNYPDIIFKDEENTGADRL
MTQRCKDKLNALAISVMNQWPGVKLRVTEGWDEDG

HHSEESLHYEGRAVDITTSRDRSKYGMLARLAVEA
GFDWVYYESKAHIHCSVKAENSVAAKSGG

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 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	SHH, HHG-1
Accession	Q62226
GeneID	20423
Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 19.8 kDa, a single non-glycosylated polypeptide chain containing 176 amino acids.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by inducing alkaline phosphatase production of murine C3H10T1/2 cells is 0.5 - 1.0 µg/ml.
Physical	Sterile Filtered White Lyophilized

Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/μg of rMuSHH as determined by LAL method.