



Recombinant Human SHH
(Sonic Hedgehog)

Catalog Number: 100-168
Accession Number: Q15465

Specifications and Uses:

Alternate Names: Shh, HHG-1

Description:

Sonic hedgehog (SHH) is a member of a small group of secreted proteins that are essential for development in both vertebrates and invertebrates. Three mammalian hedgehog genes (sonic, desert, Indian) share about 60% homology and all signal via the same receptors. Recombinant human SHH is a non-glycosylated protein, containing 175 amino acids, with a molecular weight of 19.7 kDa. The Cys at position 25 has been substituted with Ile.

Source: *E.coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation and Stability:

Recombinant human SHH is lyophilized from 10 mM Na₂PO₄, pH 7.5.

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions.

Protein Content and Purity (typically ≥ 97%) determined by:

Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm

Endotoxin Level:

Measured by kinetic LAL analysis and is typically ≤ 1 EU/μg protein.

Biological Activity:

The activity is measured by the dose-dependent induction of alkaline phosphatase production by C3H/10T1/2 (CCL-226) fibroblasts and is typically 0.8-1 μg/mL.

AA Sequence:

MIIGPGRGFG KRRHPKLTLP LAYKQFIPNV AEKTLGASGR YEGKISRNSR RFKELTPNYN PDIIFKDEEN
TGADRLMTQR CKDKLNALAI SVMNQWPGVK LRVTEGWDED GHHSEESLHY EGRALDITTS DRDRSKYGML
ARLAVEAGFD WVYYESKAHI HCSVKAENSV AAKSGG

THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!

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