

For Research Use Only

# Recombinant Human Sonic Hedgehog-SHH



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Catalog Number:HZ-1306

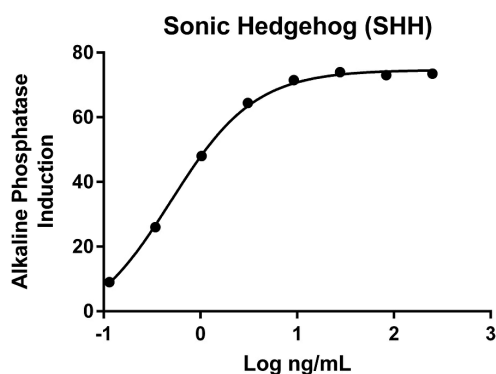
HEK293 expressed

Endotoxin-free

Animal-component free

## Technical Specifications

Species	Human
Expression	HEK293
Activity	Typically $\leq 350$ ng/mL EC50
Purity	>90%
Endotoxin	<0.5 EU/ $\mu$ g
Molecular Mass	20-24 kDa
Formulation	10mM Tris pH 7.4 + 100mM NaCl + 1% CHAPS, See Certificate of Analysis for details
Gene ID	6469



The activity was determined by ability to induce alkaline phosphatase production in C3H10T1/2 mouse embryonic fibroblast cells using pNPP as chromogenic substrate.

## Reconstitution Buffer

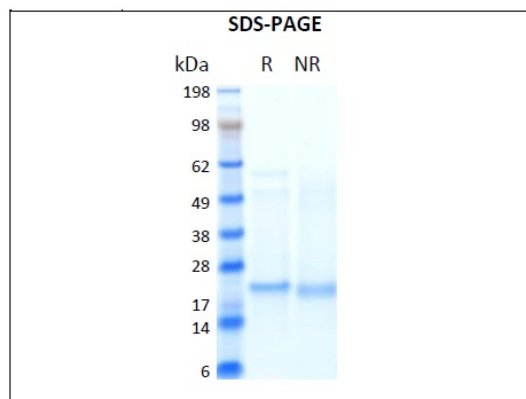
Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile water containing 0.1% endotoxin-free recombinant human serum albumin (HSA).

## Stability and Storage

Lyophilized proteins are stable for 1 year from the date of receipt if stored between (-20°C) and (-80°C). Upon reconstitution we recommend that the solution can be stored at (4°C) for short term or at (-20°C) to (-80°C) for long term. Repeated freeze thaw cycles should be avoided with reconstituted products.

## Product Description

Animal-free Recombinant Human SHH (Sonic Hedgehog) protein is the orthologue of drosophila hedgehog (Hh) and plays a critical role in vertebrate limb development. SHH gene encodes for a 45 kDa protein that undergoes autoproteolysis activated by its own C-terminal domain. Furthermore, the C-terminal domain also carries out cholesterol transferase activity. This auto-cleavage results in the formation of a 174 amino acid N-terminal product with covalently linked cholesterol moiety and a palmitoyl modification. The presence of the cholesterol and palmitoyl moieties is required for the activity of the mature SHH protein. These modifications are found in SHH derived from human cells, but are absent in bacterially expressed SHH. The N-terminal (active) form of SHH shares 98% aa homology to mouse, rat, canine, porcine and chicken SHH. It has been associated with tissue regeneration following injury and development of certain cancers in adults.



The protein was resolved by SDS-polyacrylamide gel electrophoresis and the gel was stained with Coomassie blue. R represents reducing conditions and NR represents non-reducing conditions.

## Synonyms

HHG 1, HHG1, HLP3, HPE3, MCOPCB5, SHH, SMMCI, Sonic hedgehog protein, TPT, TPTPS

For technical support and original validation data for this product please contact:

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