Sonic Hedgehog (Shh) Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: ,

Cat. No.:

RBG10298005	(5 µg)
RBG10298025	(25 µg)
RBG10298100	(100 µg)

Description

Members of the Hedgehog (Hh) family are highly conserved proteins that are widely represented throughout the animal kingdom. The three known mammalian Hh proteins, Sonic (Shh), Desert (Dhh) and Indian (Ihh), are structurally related, and share a high degree of amino acid sequence identity (e.g. Shh and Ihh are 93% identical). The biologically active form of each Hh molecule is obtained by autocatalytic cleavage of their precursor proteins, and each corresponds to approximately one half of the N-terminal portion of the precursor molecule. Although Hh proteins have unique expression patterns and distinct biological roles within their respective regions of secretion, they use the same signaling pathway and can be substituted for one another in experimental systems. Recombinant E. coli-derived Human Sonic Hedgehog is a 20.0 kDa protein consisting of 176 amino acid residues, including an N-terminal Ile-Val-Ile sequence substituted for the naturally occurring, chemically modified, Cys residue.

Research topic

Apoptosis, Bone and cartilage metabolism, Immune Response, Infection and Inflammation

Amino Acid Sequence

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IVIGPGRGFG KRRHPKKLTP LAYKQFIPNV AEKTLGASGR YEGKISRNSE RFKELTPNYN PDIIFKDEEN TGADRLMTQR
CKDKLNALAI SVMNQWPGVK LRVTEGWDED GHHSEESLHY EGRALDITTS DRDRSKYGML ARLAVEAGFD WVYYESKAHI
HCSVKAENSV AAKSGG
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Source

E. coli

Purity

98%

Biological Activity

Determined by its ability to induce alkaline phosphatase production by C3H/10T1/2 (CCL-226) cells. The expected ED_{50} for this effect is 0.8-1.0 µg/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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