

DATASHEET
Version 20181206**Shh, Mouse(CHO-expressed)****Cat. No.:** Z03008-50**Size:** 50.0 ug**Synonyms:** SHH, HHG-1**Description:**

Members of the Hedgehog (Hh) family are highly conserved proteins which 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 Hh molecules is obtained by autocatalytic cleavage of their precursor proteins and corresponds to approximately the N-terminal one half 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 substitute for each other 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 natural occurring chemically modified Cys residue.

Amino Acid Sequence:

00001 CGPGRGFGKR RHPKLTPLA YKQFIPNVAE KTLGASGRYE
00041 GKITRNSERF KELTPNYPND IIFKDEENTG ADRLMTQRCK
00081 DKLNALAISV MNQWPGVKLR VTEGWDEDGH HSEESLHYEG
00121 RAVDITTSRDR DRSKYGMLAR LAVEAGFDWV YYESKAHIHC
00161 SVKAENSVAA KSGG

Source: CHO**Species:** Mouse**Biological Activity:** ED₅₀ < 1 µg/ml, measured by its ability to induce alkaline phosphatase production by CCL-226 cells, corresponding to a specific activity of >1 x 10³ units/mg.**Molecular Weight:** 20 kDa, observed by non-reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O or PBS at 100 µg/ml.**Purity:** > 95% as analyzed by SDS-PAGE and HPLC.**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.**Storage:** Lyophilized recombinant Murine Sonic Hedgehog (SHH) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmSHH should be stable up to 1 week at 4°C or up to 2 months at -20°C.