

Active GMP Recombinant Human SHH Protein

Cat. No. SHH-111HG **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SHH, Cys24-Gly197, was produced in E. coli using non-animal reagents in an animal-free facility under cGMP guidelines.
Species	Human
Source	E.coli
ProteinLength	24-197 a.a.
Form	Lyophilized from a 0.2 µm filtered solution in NaH ₂ PO ₄ , NaCl and DTT.
Bio-activity	Measured by its ability to induce alkaline phosphatase production by C3H10T1/2 mouse embryonic fibroblast cells. Nakamura, T. et al. (1997) Biochem. Biophys. Res. Commun. 237:465. The ED50 for this effect is <5 µg/mL.
Molecular Mass	Predicted Molecular Mass: 20 kDa SDS-PAGE: 22 kDa, reducing conditions
N-terminal Sequence Analysis	(Cys24)-Gly-Pro-Gly-Arg-Gly-Phe-Gly-Lys-Arg
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE under reducing conditions and visualized by silver stain.

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Storage	Avoid repeated freeze-thaw cycles. 12 months, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 250 µg/mL in sterile deionized water.
Quality Statement	Our GMP proteins are produced according to relevant sections of the following documents: WHO TRS, No. 822, 1992 Annex 1, Good Manufacturing Practices for Biological Products; USP Chapter 1043, Ancillary Materials for Cell, Gene and Tissue-Engineered Products and USP Chapter 92, Growth Factors and Cytokines Used in Cell Therapy Manufacturing.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

GENE INFORMATION

Gene Name	SHH sonic hedgehog [Homo sapiens]
Official Symbol	SHH
Synonyms	SHH; sonic hedgehog; sonic hedgehog protein; HHG1; MCOPCB5; SMMCI; TPT; TPTPS; sonic hedgehog homolog; HLP3; HPE3;
Gene ID	6469
mRNA Refseq	NM_000193
Protein Refseq	NP_000184

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MIM	600725
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UniProt ID	Q15465
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