

Rev03
Update: Dec,14,2021

DATASHEET

Shh, Human

Cat. No.: Z02910

Product Introduction

Species	Human
Protein Construction	Shh [Ile22-Gly197 (Ala23Val, Cys24Ile)] Accession # Q15465
Purity	> 98% as analyzed by SDS-PAGE > 98% as analyzed by HPLC
Endotoxin Level	< 1 EU/μg of protein by LAL method
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by inducing alkaline phosphatase production of murine C3H/10T1/2 cells is less than 1.0 μg/ml, corresponding to a specific activity of > 1.0 × 10 ³ IU/mg.
Expression System	E. coli
Theoretical Molecular Weight	19.8 kDa
Formulation	Lyophilized from a 0.2 μm filtered solution in 20 mM PB, pH 7.4, 150 mM NaCl.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Background

Target Background : 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.

Synonyms : Hhg1; HHG-1; ShhNC; Sonic hedgehog protein N-product; Sonic hedgehog protein 19 kDa product

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