Datasheet for ABIN2018373

Sonic Hedgehog Protein (SHH) (AA 25-198, Cys25Ilelle-Mutant)

3 Images

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Overview

Quantity:	50 µg
Target:	Sonic Hedgehog (SHH)
Protein Characteristics:	AA 25-198, Cys25Ilelle-Mutant
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Characteristics:	ED50<1.0 µg/mL, measured by its ability to induce alkaline phosphatase production by C3H/10T1/2 (CCL-226) Cells, corresponding to a specific activity of>1.0× 10^3 units/mg.
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin Level:	< 0.2 EU/µg, determined by LAL method.

Target Details

Target:	Sonic Hedgehog (SHH)
Abstract:	SHH Products
Background:	Sonic Hedgehog (Shh) is a member of the Hedgehog (Hh) family of highly conserved proteins which are widely represented throughout the animal kingdom. In mammal, there are threerelatedHh proteins, Sonic (Shh), Desert (Dhh) and Indian (Ihh). They share a high degree of amino-acid sequence identity (e.g., Shh and Ihh are 93 % identical). Sonic Hedgehog plays a role

Target Details

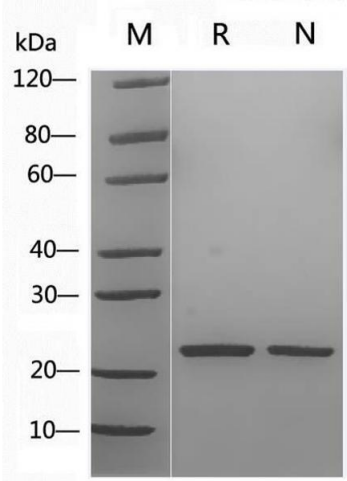
	in cell growth, cell specialization, and the normal shaping (patterning) of the body. Shh is also important for development of the brain and spinal cord (central nervous system), eyes, limbs, and many other parts of the body. Recombinant mouseSonic Hedgehog(rmShh) produced in E.coli is a single non-glycosylated polypeptide chain containing 176 amino acids. A fully biologically active molecule, rmShh,is obtained by proprietary chromatographic techniques with a molecular mass of 19.8 kDa analyzed by reducing SDS-PAGE. Synonyms: Hhg1
Molecular Weight:	19.8kDa, observed by reducing SDS-PAGE.
UniProt:	Q62226
Pathways:	Hedgehog Signaling, Dopaminergic Neurogenesis, Regulation of Muscle Cell Differentiation, Tube Formation, Skeletal Muscle Fiber Development

Application Details

Restrictions:	For Research Use only

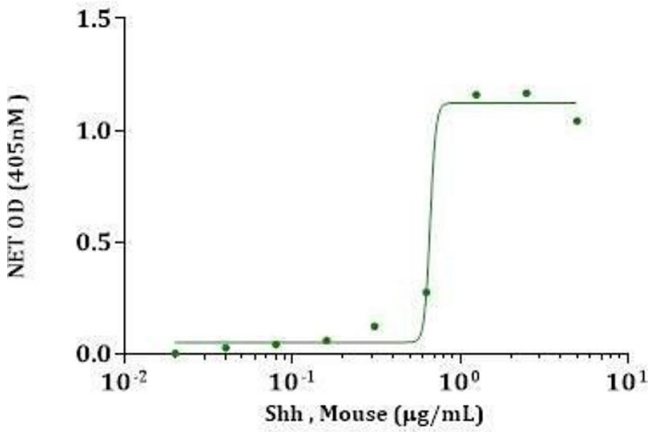
Handling

Format:	Lyophilized
Reconstitution:	Reconstituted in ddH2O at 100 µg/mL.
Buffer:	Lyophilized after extensive dialysis against PBS.
Storage:	-80 °C
Storage Comment:	Lyophilized recombinant mouseSonic Hedgehog(rmShh)remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, rmShhshould be stable up to 2 weeks at 4°C or up to 3 months at -20°C.
Expiry Date:	6 months



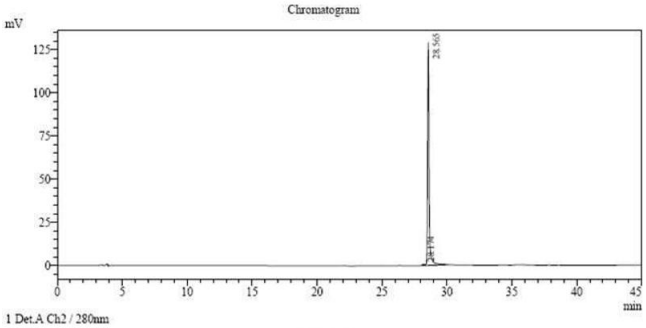
SDS-PAGE

Image 1. 2 µg of SHH, Mouse was resolved with SDS-PAGE under reducing (R) and non-reducing (N) conditions and visualized by Coomassie Blue staining.



Activity Assay

Image 2. Shh, Mouse induced alkaline phosphatase production in CCL-226 cells. The ED50 for this effect is less than 1.0ug/mL (0.8ug/mL)



Peak Table

Detector A Ch2 280nm

Peak#	Ret. Time	Area	Height	Area %
1	28.174	8418	714	0.780
2	28.565	1070196	128945	99.220
Total		1078614	129659	100.000

Image 3.