Datasheet for ABIN7519922

desert Hedgehog Protein (His tag)

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Overview

Quantity:	50 µg
Target:	desert Hedgehog (DHH)
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This desert Hedgehog protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human HHG-3/DHH Protein
Sequence:	CGPGRGPVGR RRYARKQLVP LLYKQFVPGV PERTLGASGP AEGRVARGSE RFRDLVPNYN PDIIFKDEEN SGADRLMTER CKERVNALAI AVMNMWPGVR LRVTEGWDED GHHAQDSLHY EGRALDITTS DRDRNKYGLL ARLAVEAGFD WVYYESRNHV HVSVKADNSL AVRAGG
Specificity:	Cys23-Gly198
Sterility:	0.22 µm filtered
Endotoxin Level:	<1 EU/µg

Target Details

Target:	desert Hedgehog (DHH)
Alternative Name:	HHG-3/DHH (DHH Products)
Target Type:	Species

Target Details

Background:	Description: Desert Hedgehog (Dhh) belongs to the highly conserved Hedgehog family of proteins which are involved in multiple developmental processes. Desert Hedgehog is a secreted, 45 kDa, 373 amino acid (aa) protein that undergoes autocatalytic cleavage between Gly198 and Cys199 catalyzed by the C-terminal domain, which releases the N-terminal domain with a concominant attachment of cholesterol at its new C-terminus. In addition to the C-terminally attached cholesterol, a fatty acid acyl chain is esterified to the N-terminal cysteine (aa 23) via an amide linkage. The 19 kDa N-terminal signaling domain is membrane associated due to its double lipid modifications. Its binding to Patched receptors results in the loss of Patched repression of Smoothened signaling (1 - 4). Dhh binds both Patched and Patched 2 as well as Hedgehog interacting protein (Hip) (5). Within the N-terminal domain, human Dhh shares 97 % aa sequence identity with mouse and rat Dhh. It shares approximately 75 % aa seqeuence identity with human Indian (Ihh) and Sonic Hedgehog (Shh) (5). Dhh is produced by Sertoli cells and is required for testis development and spermatogenesis (6, 7). It induces steroidogenic factor 1, which is instrumental in promoting Leydig cell differentiation (8, 9). Name: GDMN, GDXYM, HHG-3, SRXY7,HHG-3,DHH
Gene ID:	50846
UniProt:	O43323
Pathways:	Hedgehog Signaling

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid votex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1 % BSA, 5 % HSA, 10 % FBS or 5 % Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.
Concentration:	0.4 mg/mL
Buffer:	Lyophilized from a 0.22 μm filtered solution of PBS,1 mM DTT, pH 7.4.
Preservative:	Dithiothreitol (DTT)
Precaution of Use:	This product contains Dithiothreitol (DTT): a POISONOUS AND HAZARDOUS SUBSTANCE

Handling

	which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Store the lyophilized protein at -20°C to -80°C for 12 months.|After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

