

SHH, Human CellExp™, human recombinant

CATALOG #:	7223-10	10 µg
ALTERNATE NAMES:	SHH, HHG-1, Sonic hedgehog, HLP3, HPE3, SMMCI, TPT, TPTPS	
SOURCE:	HEK 293 cells (Cys 24 - Gly 197)	
PURITY:	≥ 95% by SDS-PAGE gel	
MOL. WEIGHT:	This protein is fused with 6 × His tag at the C-terminus, has a calculated MW of 20.4 kDa. The predicted N-terminus is Cys 24. DTT-reduced protein migrates as 22 kDa.	
ENDOTOXIN LEVEL:	<1 EU/µg by LAL method	
FORM:	Lyophilized	

FORMULATION: Lyophilized from 0.22 µm filtered solution in PBS. Generally 5-8% Mannitol or trehalose is added as a protectant before lyophilization.

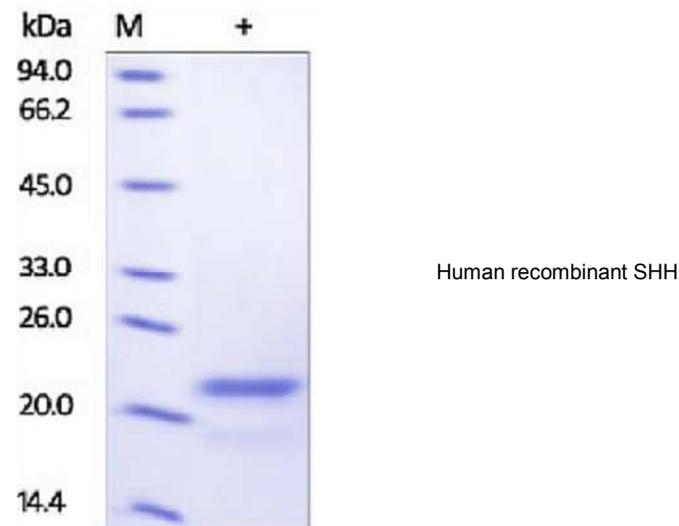
STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -20°C and use within 3 months. Avoid repeated freezing and thawing cycles.

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

DESCRIPTION: Sonic hedgehog protein (SHH) also known as HHG-1, which belongs to the hedgehog family. SHH is expressed in fetal intestine, liver, lung, and kidney and not expressed in adult tissues. Sonic hedgehog protein can be cleavage into sonic hedgehog protein N-product and sonic hedgehog protein C-product by autolysis. SHH binds to the patched (PTC) receptor, which functions in association with smoothened (SMO), to activate the transcription of target genes. In the absence of SHH, PTC represses the constitutive signaling activity of SMO. Also regulates another target, the gli oncogene. Intercellular signal essential for a variety of patterning events during development. The C-terminal domain displays an auto-proteolysis activity and a cholesterol transferase activity.

The N-product is the active species in both local and long-range signaling, whereas the C-product has no signaling activity.

BIOLOGICAL ACTIVITY: Measured by its ability to induce alkaline phosphatase production by C3H10T1/2 mouse embryonic fibroblast cells. The ED₅₀ for this effect is typically 1.5-10 µg/mL.



RELATED PRODUCTS:

- Sonic Hedgehog (SHH), human recombinant (Cat # 4010-25, -100, -1000)
- Sonic Hedgehog (SHH), murine recombinant (Cat # 4020-25, -100, -1000)

FOR RESEARCH USE ONLY! Not to be used in humans.