Recombinant Human Sonic hedgehog protein (SHH)

Product Code	CSB-EP623000HU
Abbreviation	SHH
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q15465
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	>85% (SDS-PAGE)
Sequence	CGPGRGF GKRRHPKKLT PLAYKQFIPN VAEKTLGASG RYEGKISRNS ERFKELTPNY NPDIIFKDEE NTGADRLMTQ RCKDKLNALA ISVMNQWPGV KLRVTEGWDE DGHHSEESLH YEGRAVDITT SDRDRSKYGM LARLAVEAGF DWVYYESKAH IHCSVKAENS VAAKSGGCFP GSATVHLEQG GTKLVKDLSP GDRVLAADDQ GRLLYSDFLT FLDRDDGAKK VFYVIETREP RERLLLTAAH LLFVAPHNDS ATGEPEASSG SGPPSGGALG PRALFASRVR PGQRVYVVAE RDGDRRLLPA AVHSVTLSEE AAGAYAPLTA QGTILINRVL ASCYAVIEEH SWAHRAFAPF RLAHALLAAL APARTDRGGD SGGGDRGGGG GRVALTAPGA ADAPGAGATA GIHWYSQLLY QIGTWLLDSE ALHPLGMAVK SS
Source	E.coli
Target Names	SHH
Protein Names	Recommended name: Sonic hedgehog protein Short name= SHH Alternative name(s): HHG-1 Cleaved into the following 2 chains: 1. Sonic hedgehog protein N-product 2. Sonic hedgehog protein C-product
Expression Region	24-462
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full Length of Mature Protein
Target Details	This gene encodes a protein that is instrumental in patterning the early embryo. It has been implicated as the key inductive signal in patterning of the ventral neural tube, the anterior-posterior limb axis, and the ventral somites. Of three human proteins showing sequence and functional similarity to the sonic hedgehog protein of Drosophila, this protein is the most similar. The protein is made as a precursor that is autocatalytically cleaved; the N-terminal portion is soluble and contains the signalling activity while the C-terminal portion is

	involved in precursor processing. More importantly, the C-terminal product covalently attaches a cholesterol moiety to the N-terminal product, restricting the N-terminal product to the cell surface and preventing it from freely diffusing throughout the developing embryo. Defects in this protein or in its signalling pathway are a cause of holoprosencephaly (HPE), a disorder in which the developing forebrain fails to correctly separate into right and left hemispheres. HPE is manifested by facial deformities. It is also thought that mutations in this gene or in its signalling pathway may be responsible for VACTERL syndrome, which is characterized by vertebral defects, anal atresia, tracheoesophageal fistula with esophageal atresia, radial and renal dysplasia, cardiac anomalies, and limb abnormalities. Additionally, mutations in a long range enhancer located approximately 1 megabase upstream of this gene disrupt limb patterning and can result in preaxial polydactyly.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.