

Recombinant Mouse Sonic Hedgehog/SHH Protein (Active)

Catalog No. PKSM041194

Description

Synonyms	Sonic Hedgehog Protein; SHH; HHG-1; SHH;9530036O11Rik; Dsh; Hhg1; Hx; Hx13; M10008
Species	Mouse
Expression_host	E.coli
Sequence	Cys25-Gly198
Accession	Q62226
Mol_Mass	19.8 kDa
AP_Mol_Mass	20 kDa
Tag	No tag
Bio_activity	Immobilized Mouse SHH at 1µg/ml(100 µl/well) can bind Human BOC-His(Cat: PKSH032123). The ED50 of Mouse SHH is 29 ug/ml .

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, 1mM DTT, pH 7.4.
Reconstitution	Please refer to the printed manual for detailed information.

Background

Mouse Sonic Hedgehog Homolog (SHH) belongs to a three-protein family called Hedgehog. The other two family members are Indian Hedgehog (IHH) and Desert Hedgehog (DHH). Hedgehog proteins are key signaling molecules in embryonic development. SHH is expressed in various embryonic tissues and plays critical roles in regulating the patterning of many systems, such as limbs and brain. SHH also plays an important role in adult, including the division of adult stem cells and the development of certain cancers and other diseases. Mouse Shh is synthesized as a 437 aa precursor that contains a 24 aa signal sequence and a 413 aa mature region. The mature region is autocatalytically processed into a nonglycosylated, 20 kDa, 174 aa N-terminal fragment (Shh-N), and a catalytic-processing, glycosylated, 34 kDa, 239 aa C-terminal fragment. The 20 kDa Shh-N fragment is the core of the active hedgehog molecule. Mouse Shh-N is 99%, 98%, and 100% aa identical to human, rat and gerbil Shh-N, respectively.

SDS-PAGE

