Recombinant Protein Technical Manual

Recombinant Mouse Sonic Hedgehog/SHH (C25II) Protein (Active)

RPES0633

Product Data:

Product SKU: RPES0633

Size: 10µg

Species: Mouse

Expression host: E. coli

Uniprot: Q62226

Protein Information:

Molecular Mass:	19.8 kDa
AP Molecular Mass:	18-20 kDa
Tag:	
Bio-activity:	Immobilized Human SHH at 1µg/ml(100 µl/well) can bind Human BOC-His(Cat: PKSH032123).
Purity:	> 95% as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	Lyophilized protein should be stored at < -20℃, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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.
Application:	Functional ELISA
Synonyms:	Sonic Hedgehog Protein; SHH; HHG; SHH

Immunogen Information:

Sequence: Cys25-Gly198(Cys25Ile-Ile)

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.