

Recombinant Mouse SHH

Catalog#:AC13203 Derived from *E.coli*

DESCRIPTION	Recombinant Mouse Sonic Hedgehog is produced by our E.coli expression system and target gene encoding Cys25-Gly198 is expressed. Accession#: Q62226 Known as: Sonic Hedgehog Protein; SHH; HHG-1; SHH
FORMULATION	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
SHIPPING	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
STORAGE	Lyophilized protein should be stored at < -20°C, though stable at room temperature for weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
RECONSTITUTION	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
QUALITY CONTROL	Bioactivity: Immobilized Mouse SHH(Cat#CH69) at 1μg/ml (100 μl/well) can bind Hum BOCHis(Cat#C764). The ED50 of Mouse SHH(Cat#CH69) is 15-60 ug/ml. Mol Mass: 19.8kDa AP Mol Mass: 20kDa, reducing conditions. Purity: Greater than 95% as determined by reducing SDS-PAGE. Endotoxin: Less than 0.1 ng/μg (1 EU/μg) as determined by LAL test.
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 KDa MK R