

## SHH, Mouse, Recombinant

Cat. No. : PCK264

### General Information

<b>Synonyms</b>	Sonic Hedgehog Protein;SHH;HHG-1;SHH
<b>Species</b>	Mouse
<b>Expression host</b>	E.coli
<b>Sequence</b>	Cys25-Gly198
<b>Accession</b>	Q62226
<b>Mol mass</b>	19.8 kDa
<b>Expiration date</b>	12 months

### Product feature

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin (EU/μg)</b>	< 0.1
<b>Storage</b>	Lyophilized protein should be stored at -5~-20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at -5~-20°C for 3 months.
<b>Shipping</b>	Ice bag
<b>Formulation</b>	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
<b>Reconstitution</b>	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 μg/mL. Dissolve the lyophilized protein in sterile water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

### 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.