

Product Sheet

Sonic Hedgehog, human recombinant

Catalog # SHH-005; SHH-025; SHH-100

Description The hedgehog (Hh) gene encodes a secreted protein originally identified in *Drosophila*. The vertebrate homologs of Hh comprise of Sonic (SHh), Desert (DHh) and Indian (IHh). SHh plays an important role in embryonic development and in diseases such as cancer. Human SHh precursor is a 45kDa protein. An autocatalytic reaction yields a 19 kDa N-terminal domain that is biologically active. Because of unique post-translational modifications, SHh produced in mammalian cells is much more biologically active than SHh produced from *E. coli* and is devoid of artifact associated with the *E. coli* products commercially available from other manufacturers.

Formulation Lyophilized in sterile filtered solution of PBS with 1% CHAPS

Reconstitution Before reconstitution, we recommend a brief spin to drive down any material dislodged from the bottom of the tube. The lyophilized protein should be reconstituted in sterile H₂O to a concentration of 100 ng/uL. Because of the hydrophobic nature of this protein, further dilutions should be made in buffer or medium containing carrier proteins, such as albumin or serum.

Stability The lyophilized protein is stable for at least 1 year if stored at -80 degree C. Reconstituted protein is stable for at least 1 month at 4 degree C, but should be stored in aliquots at -80 degree C for longer term. Avoid repeated freeze and thaw.

Purity Greater than 85% as determined by SDS-PAGE and HPLC analysis

Biological Activity The activity was determined by using a Gli reporter gene assay in 3T3 cells. The EC50 ranges from 5 to 20 ng/ml.

Country of Origin USA

For Research Use Only. Not for Use in Humans.