

# Growth Factor Data Sheet

GoldBio growth factors are manufactured for **RESEARCH USE ONLY** and cannot be sold for human consumption!

Members of the Hedgehog (Hh) family are highly conserved proteins that are widely represented throughout the animal kingdom. The three known mammalian Hh proteins, Sonic (Shh), Desert (Dhh) and Indian (Ihh), are structurally related and share a high degree of amino acid sequence identity. Each Hh protein has a unique expression pattern and distinct biological role within its respective region of secretion. All Hh proteins use the same signaling pathway and can substitute for each other in experimental systems. Shh has been found to have a critical role in development, acting as a morphogen in the patterning of limbs, brain structure, facial structure, lungs, spinal cord, thalamus and the teeth. Shh has been shown to attract commissural axons in the developing spinal cord by attracting or repelling retinal ganglion cell (RGC) axons depending on concentration. Murine SHH is frequently coexpressed with BMP2, BMP4, and BMP6.

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| <b>Catalog Number</b>      | <b>6310-19</b>   |
| <b>Product Name</b>        | <b>SHH, Murine</b><br>Recombinant Murine Sonic HedgeHog (SHH)<br>rMuSHH<br>Hhg1<br>Hxl3  |
| <b>Source</b>              | <i>Escherichia coli</i>  |
| <b>MW</b>                  | ~19.8 kDa (176 amino acids)  |
| <b>Sequence</b>            | IVIGPGRGFG KRRHPKKLTP LAYKQFIPNV AEKTLGASGR YEGKITRNSE RFKELTPNYN<br>PDIIFKDEEN TGADRLMTQR CKDKLNALAI SVMNQWPGVK LRVTEGWDED GHHSEESLHY<br>EGRAVDITTS DRDRSKYGML ARLAVEAGFD WVYYESKAHI HCSVKAENSV AAKSGG  |
| <b>Accession Number</b>    | <a href="#">Q62226</a>   |
| <b>Purity</b>              | >95 % by SDS-PAGE and HPLC analyses.   |
| <b>Biological Activity</b> | Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by inducing alkaline phosphatase production of murine C3H10T1/2 cells is 0.5-1.0 µg/ml.  |
| <b>Formulation</b>         | Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.  |
| <b>Storage/Handling</b>    | This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.  |
| <b>Reconstitution</b>      | The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions. |