## GFH168

## Description

Sonic hedgehog $(\mathrm{SHH})$ is a member of a small group of hedgehog secreted proteins that are essential for development in both vertebrates and invertebrates. There are three mammalian hedgehog homologues, sonic, desert, and indian, that signal via the Patched-1 and Patched- 2 receptors. SHH is a morphogen that is essential during vertebrate organogenesis and adult stem cell division.

| Length | 179 aa |
| :--- | :--- |
| Molecular Weight | 20.2 kDa |
| Source | E. coli |
| Accession Number | Q15465 |
| Purity | $\geq 95 \%$ determined by reducing and non-reducing SDS-PAGE |

Specifications

| Alternative Names | Sonic hedgehog, HHG-1, HHG1, HLP3, HPE3 <br> Biological Activity |
| :--- | :--- |
| Human SHH is fully biologically active when compared to standard. The activity is determined by the dose- <br> dependent induction of alkaline prosphatase production by C3H/10T1/2 fibroblasts and it is typically 750 <br> $\mathrm{ng} / \mathrm{ml}$. |  |
| Endotoxin Level | $\leq 1.00$ EU/ug as measured by kinetic LAL |
| Formulation | Lyophilized from a sterile ( 0.2 micron) filtered aqueous solution containing 10 mM sodium phosphate, pH 7.5 <br> AA Sequence <br>  <br> MIIGPGRGFG KRRHPKKLTP LAYKQFIPNV AEKTLGASGR YEGKISRNSE RFKELTPNYN <br>  <br>  <br> PDIIFKDEEN TGADRLMTQR CKDKLNALAI SVMNQWPGVK LRVTEGWDED GHHSEESLHY <br> EGRALDITTS DRDRSKYGML ARLAVEAGFD WVYYESKAHI HCSVKAENSV AAKSGGCFP |

Preparation and Storage

Reconstitution

Stability and Storage

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at $0.1 \mathrm{mg} / \mathrm{ml}$, which can be further diluted into other aqueous solutions.

12 months from date of receipt when stored at $-20^{\circ} \mathrm{C}$ to $-80^{\circ} \mathrm{C}$ as supplied.
1 month when stored at $4^{\circ} \mathrm{C}$ after reconstituting as directed.
3 months when stored at $-20^{\circ} \mathrm{C}$ to $-80^{\circ} \mathrm{C}$ after reconstituting as directed.

