# Shh
# Recombinant Rat Sonic Hedgehog

| Catalog No. | CRC403A | Quantity: | 25 µg |
| --- | --- | --- | --- |
| | CRC403B | | 100 µg |
| | CRC403C | | 1.0 mg |

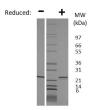| | |
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| **Alternate Names:** | Shh, HHG-1, HHG1, Sonic hedgehog protein |
| **Description:** | Sonic hedgehog (SHH) is a member of a small group of secreted proteins that are essential for development in both vertebrates and invertebrates. Three mammalian hedgehog genes (sonic, desert, Indian) share about 60% homology and all signal via the same receptors. |
| **UniProt ID:** | Q63673 |
| **Source:** | *E. coli* |
| **Molecular Weight:** | 19.9 kDa (176 aa) |
| **Formulation:** | Recombinant mouse SHH is lyophilized from 10 mM $Na_2PO_4$, pH 7.5. |
| **Purity:** | ≥95% by reducing and non-reducing SDS-PAGE. |
| **Endotoxin Level:** | ≤ 0.1 EU/µg, by kinetic LAL analysis. |
| **Amino Acid Sequence:** | MIIGPGRGFG KRRHPKKLTP LAYKQFIPNV AEKTLGASGR YEGKITRNSE RFKELTPNYN PDIIFKDEEN TGADRLMTQR CKDKLNALAI SVMNQWPGVK LRVTEGWDED GHHSEESLHY EGRAVDITTS DRDRSKYGML ARLAVEAGFD WVYYESKAHI HCSVKAENSV AAKSGG |
| **Reconstitution:** | **Centrifuge vial prior to 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 a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions. |
| **Storage & Stability:** | Lyophilized product is very stable at -20°C to -80°C for 1 year. Reconstituted material should be aliquoted and frozen at -20°C to -80°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage. |



**Rat SHH Gel**
Figure: 1 ug run under (-) non-reducing conditions and (+) reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Rat SHH is predicted to have a MW of 19.9 kDa.

**NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.**