

**ChemWhat** Recombinant Murine Sonic Hedgehog N-Terminus  
A brand under Watson (rMuSHH)

**ChemWhat Technical Data Sheet (TDS)**

<b>Catalog Number:</b>	621-19
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 19.8 kDa, a single non-glycosylated polypeptide chain containing 176 amino acids.
<b>Quantity:</b>	5µg/25µg/1000µg
<b>AA Sequence:</b>	IVIGPGRGFG KRRHPKCLTP LAYKQFIPNV AEKTLGASGR YEGKITRNSERFKELTPNYN PDIIFKDEEN TGADRLMTQR CKDKLNALAI SVMNQWPGVKLRVTEGWDED GHHSEESLHY EGRAVDITTS DRDRSKYGML ARLAVEAGFDWVYYESKAHI HCSVKAENSV AAKSGG
<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>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
<b>Endotoxin:</b>	Less than 1 EU/µg of rMuSHH as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

***Murine Sonic Hedgehog***

Sonic hedgehog is one of three proteins in the mammalian signaling pathway family called hedgehog, the others being desert hedgehog (DHH) and indian hedgehog (IHH). As the hh homologues, SHH has been found to have the most critical roles in development. It acts as a morphogen involved in patterning many systems, including the limb and midline structures in the brain, spinal cord, the thalamus by the zona limitans intrathalamica and the teeth. There SHH undergoes auto-processing to generate a 20 kDa (residues 24 - 197) N-terminal signaling domain (SHH-N) and a 25 kDa (residues 198 - 462) C-terminal domain with no known signaling role.