

**ChemWhat** Recombinant Human Desert Hedgehog Cys23IleIle  
A brand under Watson  
(rHuDHH C23II)

**ChemWhat Technical Data Sheet (TDS)**

<b>Catalog Number:</b>	601-40A
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 19.9 kDa, a single non-glycosylated polypeptide chain containing 177 amino acids.
<b>Quantity:</b>	5µg/25µg/1000µg
<b>AA Sequence:</b>	IIGPGRGPVG RRRYARKQLV PLYKQFVPG VPERTLGASG PAEGRVARGS ERFRDLVPNY NPDIIFKDEE NSGADRLMTE RCKERVNALA IAVMNMWPGV RLRVTEGWDE DGHHAQDSLH YEGRALDITT SDRDRNKYGL LARLAVEAGF DWVYYESRNH VHVSVKADNS LAVRAGG
<b>Purity:</b>	> 96 % 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 its ability to induce alkaline phosphatase production by C3H10T1/2(CCL-226) cells is 15-45 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 10mM PB, pH 6.0, 300mM NaCl.
<b>Endotoxin:</b>	Less than 1 EU/µg of rHuDHH C23II 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>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <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>	<b>ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.</b>

***Human Desert Hedgehog Cys23IleIle***

Desert hedgehog protein (DHH), also named HHG-3, is belonging to the hedgehog (Hh) family that are highly conserved proteins which are widely represented throughout the animal kingdom. This protein is predicted to be made as a precursor that is autocatalytically cleaved and the biologically active form of Hh molecules corresponds to approximately the N-terminal one half of the precursor molecule. The N-terminal portion is soluble and contains the signaling activity while the C-terminal portion is involved in processing. More importantly, the C-terminal product covalently attaches a cholesterol moiety to the N-terminal product, restricting the N-terminal product to the cell surface and preventing it from freely diffusing throughout the organism. DHH is essential for a variety of patterning events during development as intercellular signal. It may function as a spermatocyte survival factor in the testes and play an important role in testes development. Mature human DHH shares 97 % amino acid sequence identity with murine DHH.

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