

**Recombinant Human Proinsulin  
C-Peptide Analogue  
(rHuProinsulin C-Peptide Analogue)  
ChemWhat Technical Data Sheet (TDS)**

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<b>Catalog Number:</b>	10A-02
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 3.6 kDa, a single non-glycosylated polypeptide chain containing 35 amino acids.
<b>Quantity:</b>	10µg/50µg/1000µg
<b>AA Sequence:</b>	RREAEDLQVG QVELGGGPGA GSLQPLALEG SLQKR
<b>Purity:</b>	> 95 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Data Not Available.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.
<b>Endotoxin:</b>	Less than 0.1 EU/µg of rHuProinsulin C-Peptide Analogue 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>

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### ***Human Proinsulin C-Peptide Analogue***

Proinsulin, a molecular weight of 8 kDa to 10 kDa, is a precursor of insulin. It has minimum hormonal activity and is converted to insulin by removal of the connecting C-peptide. Mature insulin has 35 fewer amino acids; 4 are removed altogether and the remaining 31 form the C-peptide. The C-peptide is abstracted from the center of the proinsulin sequence; the two other ends (the B chain and A chain) remain connected by disulfide bonds. Insulin decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle and glycogen synthesis in liver.