

## **Flogen<sup>®</sup> Recombinant Human Proinsulin C-Peptide Analogue** **(rHuProinsulin C-Peptide Analogue)**

<b>Catalog Number:</b>	PGR010A-002
<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>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 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>Storage:</b>	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. <b>Avoid repeated freeze/thaw cycles.</b>
<b>Usage:</b>	For research, laboratory or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

### **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.