

Product Specification Sheet

**Glucagon like peptide 1 (GLP1)**

Cat. # GLP16-P-500	Human GLP 1 amide (1-36)	<b>SIZE:</b> 500 ug
Cat. # GLP17-P-500	Human GLP 1 amide (7-36)	<b>SIZE:</b> 500 ug
Cat. # GLP18-P-500	Human Glucagon like peptide 1, (Ser8, 7-36) amide	<b>SIZE:</b> 500 ug

Glucagon is a member of a multigene family comprising of Secretin, Vasoactive Intestinal Peptide (VIP), Gastric Inhibitory Peptide (GIP) and others like Glicentin and Oxyntomodulin (OXM), which differs from glucagon by C-terminal octapeptide. The glucagon precursor contains at least 3 intervening sequences that divide the protein-coding portion into 4 regions corresponding to the signal peptide and part of the N-terminal peptide, the remainder of the N-terminal peptide and glucagon, glucagon-like peptide-1 (GLP1), and GLP2. The GLP 1 & 2 stimulates intestinal growth and up regulates villus height in the small intestine, concomitant with increased crypt cell proliferation and decreased enterocyte apoptosis. The two GLP's are mainly produced in the A cells of the Islets of Langerhans in response to a drop in blood sugar concentration.

**GLP1**, a processed active peptide of 30aa (chr 2q36-q37) is a potent insulin secretagogue, plays a major role in the enteroinsular axis, accounting for the finding that plasma insulin levels accompanying oral intake of glucose are greater than those observed when glucose is given intravenously. The so-called gluco-incretin.

GLP1 peptides were synthesized and purified by RP-HPLC.

**Cat# GLP16-P-500 (GLP1, 1-36 aa)**

**Sequence:**

H-His-Asp-Glu-Phe-Glu-Arg-His-Ala-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys-Glu-Phe-Ile-Ala-Trp-Leu-Val-Lys-Gly-Arg-Gly-NH<sub>2</sub>

**Mol Wt:** 4169.6

**Formula:** C186H275N51O59

**Disulfide bridge**

**Purity:** >95%

**Cat# GLP17-P-500 (GLP1, 7-36 aa)**

**Sequence:**

H- His-Ala-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys-Glu-Phe-Ile-Ala-Trp-Leu-Val-Lys-Gly-Arg-NH<sub>2</sub>

**Mol Wt:** 3297.5

**Formula:** C149H226N40O45

**Disulfide bridge**

**Purity:** >95%

**Cat# GLP18-P-500 (Ser8, 7-36)**

**Sequence**

His-Ser-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys-Glu-Phe-Ile-Ala-Trp-Leu-Val-Lys-Gly-Arg-NH<sub>2</sub>

**MW** 3312.7

**Formula** C149H225N40O46

**Disulfide Bridge**

The modification of GLP-1 (7-36) by replacing alanine with serine significantly improved the plasma stability of GLP-1 (7-36) amide against DPP IV without impairing its insinotropic activity. This modified GLP-1 (7-36) amide could improve the potential of GLP-1 in the treatment of type-II diabetes

All peptides in soluble in DMF or other buffers.

**Form & Storage of Antibodies/Peptide Control**

**Storage**

**Short-term:** unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder

**General References:**

Suzuki A et al, PNA ( April 2003); Yamamot H et al, J Neurosci (2003) 23(7) 2939-46; Yves Rouille, JBC (1995) 270 : 26488-96,

\*This product is for In vitro research use only.

**Related material available from ADI**

Antibodies for Glucagon, GIP, OXM, Secretin and GRF.

GLP16-17-18-P 71222A