ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

**Glucagon like peptide 1 (GLP1)**

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|---|---|---|
| Cat. # GLP19-P-500 | Human GLP 1 (7-37) | **SIZE**: 500 ug |
| Cat. # GLP20-P-500 | Human GLP 1 (1-37) | **SIZE**: 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 crupt 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# GLP19-P-500 (GLP1, 7-37 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 - Gly - OH

**Mol Wt**: 3355.6
**Purity**: >95%
**Form**: Lyophilized powder
**Solubility**: Soluble in water at 1 mg/ml.
**Store** at -20oC

**Cat# GLP20-P-500 (GLP1, 1-37 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-OH

**Mol Wt**: 4169.5
**Purity**: >95%
**Form**: Lyophilized powder
**Store** at -20oC
**Solubility**: Soluble in water at 1 mg/ml.

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

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

**Specificity & Cross-reactivity**

Human GLP19-P-500 (7-37) sequence is 100% conserved in mouse, rat, human, pig, bovine, monkey, chicken, rat, g. pig, sheep, canine, golden hamster, and 70% in Frog and zebra fish GLP1 (7-37) peptides.

Human GLP20-P-500 (1-37) sequence is 100% conserved in mouse, rat, human, pig, bovine, monkey, chicken, rat, g. pig, sheep, canine, golden hamster, and 73% in Frog and 75% in zebra fish GLP1 (1-37) peptides.

**General References**:

Ref: Brubaker, P. and D. Drucker, Receptors Channels 8, 179 (2002); Leonova, J. et al. Am. J. Physiol. Cell Physiol. 281, C1495 (2001); Drucker, D. et al. Proc. Natl. Acad. Sci. USA 84, 3434 (1987); Rönnbäck, L. and E. Hansson, J. Neuroinflam. 1, 22 (2004); Rothstein JD. et al. Neuron. 16, 675 (1996); Sonnewald, U. et al. Pharmacol. 3011 (2002).,

*This product is for In vitro research use only.

**Related material available from ADI**

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

GLP19-20-P-500 71222A

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