

Product Data Sheet

**Cat#**                **SP-52752-1**

**Description:**    Glucagon-Like Peptide I (GLP-1/GLP1, 7-36), amide, human (AA: 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>) (MW: 3297.7)

**Size:**                1 mg

**Purity:**            >95%

**Store:**             Desiccated at -20oC.

Glucagon-like peptide-1 (GLP-1) is a neuropeptide and an incretin derived from the transcription product of the proglucagon gene. The major source of GLP-1 in the periphery is the intestinal L cell that secretes GLP-1 as a gut hormone; the major source in the brain is the nucleus of the solitary tract, which is the source of a widely distributed set of GLP-1 projection neurons. The biologically active forms of GLP-1 are: GLP-1-(7-37) and GLP-1-(7-36)NH<sub>2</sub>. Those peptides result from selective cleavage of the proglucagon molecule.

GLP-1 secretion by ileal L cells is dependent on the presence of nutrients in the lumen of the small intestine. Once in the circulation, GLP-1 has a half-life of less than 2 minutes, due to rapid degradation by the enzyme dipeptidyl peptidase-4. It is a potent antihyperglycemic hormone, inducing glucose-dependent stimulation of insulin secretion while suppressing glucagon secretion. Such glucose-dependent action is particularly attractive because, when the plasma glucose concentration is in the normal fasting range, GLP-1 no longer stimulates insulin to cause hypoglycemia. GLP-1 appears to

restore the glucose sensitivity of pancreatic β-cells, with the mechanism possibly involving the increased expression of GLUT2 and glucokinase. GLP-1 is also known to inhibit pancreatic β-cell apoptosis and stimulate the proliferation and differentiation of insulin-secreting β-cells. In addition, GLP-1 inhibits gastric secretion and motility. This delays and protracts carbohydrate absorption and contributes to a satiating effect.

This product is for in vitro research use only.

**Related Material available for ADI**

Catalog#	Prod Description
SP-51018-1	Glucagon-Like Peptide I (GLP1/GLP-1, 7-37); GLP-1 (7-37)
SP-52752-1	Glucagon-Like Peptide I (GLP-1/GLP1, 7-36), amide, human (AA: 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> ) (MW: 3297.7)

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