

Product: Exendin-4, recombinant
Catalog #: 12-4242
Amount: 10 µg

DESCRIPTION:

Recombinant Exendin-4 (rExendin)

rExendin-4 is a glucagon like peptide-1 receptor agonist. The native hormone is produced in the gut of Gila monster *Heloderma suspectum* (a type of reptile found in the desert) that stimulates insulin production without causing threateningly low blood sugar, which can occur after using insulin and some anti-diabetes products. Recently, researchers used extracted saliva from gila monsters to create an unprecedented breakthrough in Diabetes Type 2 treatment. Unlike other products taken for type 2 diabetes, Exedin-4 has not been linked with weight gain and actually resulted in weight loss, according to the researchers. Recombinant Exendin-4 is a novel 39-amino acids peptide having a molecular mass of 4186.7 dalton, which shares 53% sequence homology with GLP-17-36 amide and interacts with the same membrane receptor. Exedin-4 enhances glucose-dependant insulin secretion, suppresses inappropriately elevated glucagon secretion and slows gastric emptying in vivo. It also promotes B-cell proliferation and neogenesis in vitro and in animal models. Exedin-4 stimulates an increase in acinar cAMP, without stimulating the release of amylase.

Amino acid Sequence:

His-Gly-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Leu-Ser-Lys-Gln-Met-Glu-Glu-Glu-Ala-Val-Arg-Leu-Phe-Ile-Glu-Trp-Leu-Lys-Asn-Gly-Gly-Pro-Ser-Ser-Gly-Ala-Pro-Pro-Pro-Ser.

SOURCE:*Escherichia coli***PURITY:**

> 95%, as determined by:

(a) Analysis by RP-HPLC and Anion-exchange FPLC.

(b) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

ENDOTOXIN:

< 0.1 ng/µg (IEU/µg) of rExendin-4

DIMERS & AGGREGATES:

< 1% as determined by silver stained SDS-PAGE gel analysis

PROTEIN CONTENT:

Protein quantitation was carried out by 2 independent methods:

- UV spectroscopy at 280 nm

- Analysis by RP-HPLC, using a standard solution of rExendin-4 as a Reference Standard

FORM:

Purified, in 20mM PBS and contains 4% mannitol, containing 0.1 % BSA

STORAGE:

-20°C (aliquot), avoid freezing and thawing cycles

BIOLOGICAL ACTIVITY:

- Regulates Glucose levels rapidly

- Reduces Insulin resistance

- Reduces Glucagon

- Reduces HbA1c

- Stimulates beta cell growth which stimulates insulin production

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