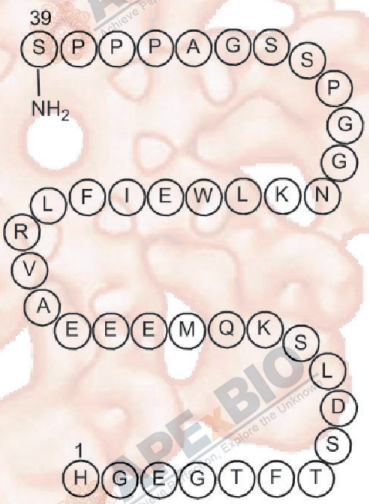
Product Data Sheet

Exendin-4

Cat. No.: A3408
CAS No.: 141758-74-9
Formula: C184H282N50O60S
M.Wt: 4186.57
Synonyms: Exenatide
Target: GPCR/G protein
Pathway: Glucagon Receptor
Storage: Store at -20°C



Solvent & Solubility

In Vitro

⩾145 mg/mL in DMSO; insoluble in EtOH; ⩾52 mg/mL in H2O with gentle warming

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	0.2389 mL	1.1943 mL	2.3886 mL
5 mM	0.0478 mL	0.2389 mL	0.4777 mL
10 mM	0.0239 mL	0.1194 mL	0.2389 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	GLP-1 activator
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Mouse insulinoma beta TC-1 cell line
Preparation method:	Soluble to 1 mg/ml in sterile water. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in

		the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
	Reacting conditions:	0.1 nM to 1 μM for 2 h
	Applications:	Exendin-4, like GLP-1, could stimulate dose dependently the glucose-induced insulin secretion in isolated rat islets, and, in mouse insulinoma beta TC-1 cells, both peptides were able to stimulate the proinsulin gene expression at the level of transcription.
In Vivo	**Animal experiment**	
	Animal models:	Ob/ob mice model
	Dosage form:	10 μg/kg or 20 μg/kg, qd for 14 days
	Applications:	Ob/ob mice were treated with Exendin-4 [10 μg/kg or 20 μg/kg] for 60 days. It was found that Ob/ob mice sustained a reduction in the net weight gained during Exendin-4 treatment. Serum glucose and hepatic steatosis was significantly reduced in Exendin-4 treated ob/ob mice. Moreover, Exendin-4 improved insulin sensitivity in ob/ob mice, as calculated by the homeostasis model assessment. The measurement of thiobarbituric reactive substances as a marker of oxidative stress was significantly reduced in ob/ob-treated mice with Exendin-4.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Gke R, Fehmann H C, Linn T, et al. Exendin-4 is a high potency agonist and truncated exendin-(9-39)-amide an antagonist at the glucagon-like peptide 1-(7-36)-amide receptor of insulin-secreting beta-cells[J]. Journal of Biological Chemistry, 1993, 268(26): 19650-19655.

[2] Ding X, Saxena N K, Lin S, et al. Exendin‐4, a glucagon‐like protein‐1 (GLP‐1) receptor agonist, reverses hepatic steatosis in ob/ob mice[J]. Hepatology, 2006, 43(1): 173-181.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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