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

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

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass Concentration</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Vitro</td>
<td></td>
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<tr>
<td>Solvent</td>
<td></td>
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<tr>
<td>1 mM</td>
<td></td>
<td>0.2389 mL</td>
<td>1.1943 mL</td>
<td>2.3886 mL</td>
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<tr>
<td>5 mM</td>
<td></td>
<td>0.0478 mL</td>
<td>0.2389 mL</td>
<td>0.4777 mL</td>
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<tr>
<td>10 mM</td>
<td></td>
<td>0.0239 mL</td>
<td>0.1194 mL</td>
<td>0.2389 mL</td>
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</tbody>
</table>

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

Biological Activity

Short summary

GLP-1 activator

IC50 & Target

Cell Viability Assay

<table>
<thead>
<tr>
<th>In Vitro</th>
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<tbody>
<tr>
<td>Cell Line:</td>
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<td>Preparation method:</td>
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</table>
Pl Ob/ob mice were treated with Exendin-4 or 20 μg/kg, qd for 14 days. 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.

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.

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.

In Vivo

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


References


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. Short-term 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.