

# PRODUCT INFORMATION



## Lixisenatide (acetate)

Item No. 39739

|                          |   |  |
|--------------------------|---|--|
| <b>CAS Registry No.:</b> | 1997361-87-1  | H—His—Gly—Glu—Gly—Thr—Phe—Thr—Ser—Asp—Leu— |
| <b>Synonyms:</b>         | AVE-0010, ZP10A   | Ser—Lys—Gln—Met—Glu—Glu—Glu—Ala—Val—Arg—   |
| <b>Peptide Sequence:</b> | HGEGTFTSDLKQMEEEAVRLFIEWL<br>KNGGPSSGAPPSKKKKKK-NH <sub>2</sub>   | Leu—Phe—Ile—Glu—Trp—Leu—Lys—Asn—Gly—Gly—   |
| <b>MF:</b>               | C <sub>215</sub> H <sub>347</sub> N <sub>61</sub> O <sub>65</sub> S • XC <sub>2</sub> H <sub>4</sub> O <sub>2</sub> | Pro—Ser—Ser—Gly—Ala—Pro—Pro—Ser—Lys—Lys—   |
| <b>FW:</b>               | 4,918.6   | Lys—Lys—Lys—Lys—NH <sub>2</sub>            |
| <b>Purity:</b>           | ≥98%  | • XCH <sub>3</sub> CO <sub>2</sub> H       |
| <b>Supplied as:</b>      | A solid   |  |
| <b>Storage:</b>          | -20°C   |  |
| <b>Stability:</b>        | ≥4 years  |  |

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Lixisenatide (acetate) is supplied as a solid. A stock solution may be made by dissolving the lixisenatide (acetate) in the solvent of choice, which should be purged with an inert gas. Lixisenatide (acetate) is slightly soluble in acetonitrile.

Lixisenatide (acetate) is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

### Description

Lixisenatide is an agonist of glucagon-like peptide 1 receptor (GLP-1R) and a derivative of exendin-4 (48-86) amide (Item No. 11096).<sup>1</sup> It binds to CHO-K1 cells expressing human GLP-1R (IC<sub>50</sub> = 1.4 nM). Lixisenatide (100 pM) inhibits II-1β- and IFN-γ-induced apoptosis in INS-1 rat pancreatic β-cells.<sup>2</sup> It lowers blood glucose levels in an oral glucose tolerance test (OGTT; ED<sub>50</sub> = 0.021 nmol/kg) and decreases blood levels of hemoglobin A1c (HbA1c) in *db/db* mice.<sup>1</sup> Formulations containing lixisenatide have been used adjuncts to diet and exercise to improve glycemic control in patients with type 2 diabetes mellitus.

### References

1. Thorkildsen, C., Neve, S., Larsen, B.D., *et al.* Glucagon-like peptide 1 receptor agonist ZP10A increases insulin mRNA expression and prevents diabetic progression in *db/db* mice. *J. Pharmacol. Exp. Ther.* **307**(2), 490-496 (2003).
2. Tews, D., Werner, U., and Eckel, J. Enhanced protection against cytokine- and fatty acid-induced apoptosis in pancreatic beta cells by combined treatment with glucagon-like peptide-1 receptor agonists and insulin analogues. *Horm. Metab. Res.* **40**(3), 172-180 (2008).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/21/2023

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM