

# PRODUCT INFORMATION



## Exendin-4 (48-86) amide (acetate)

Item No. 11096

CAS Registry No.: 914454-01-6

Synonym: Exenatide acetate

Peptide Sequence: HEGFTFSDLSKQMEEEAVRL  
FIEWLKNGGPSSGAPPPS-NH<sub>2</sub>

H—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—NH<sub>2</sub>

• CH<sub>3</sub>CO<sub>2</sub>H

FW: 4,246.6

Purity: ≥95%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years

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

### Laboratory Procedures

Exendin-4 (48-86) amide (acetate) is supplied as a crystalline solid. Aqueous solutions of exendin-4 (48-86) amide (acetate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of exendin-4 (48-86) amide (acetate) in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Exendin-4 (48-86) amide is a 39-amino acid peptide fragment corresponding to residues 48-86 of exendin-4, a peptide produced in the salivary gland of the Gila monster, and an agonist of the glucagon-like peptide 1 receptor (GLP-1R; IC<sub>50</sub> = 3.5 nM).<sup>1,2</sup> Radiolabeled exendin-4 (48-86) amide localizes to the pancreas, kidneys, and bladder in a porcine model of diabetes induced by streptozotocin (Item No. 13104).<sup>3</sup> Exendin-4 (48-86) amide (10 nmol/kg) improves motor performance in the rotarod test in a mouse model of Parkinson's disease induced by MPTP.<sup>4</sup> It reduces MPTP-induced loss of dopaminergic neurons in the substantia nigra in the same model. Formulations containing exendin-4 (48-86) amide have been used in the treatment of type 2 diabetes mellitus.

### References

1. Clardy, S.M., Mohan, J.F., Vinegoni, C., *et al.* Rapid, high efficiency isolation of pancreatic  $\beta$ -cells. *Sci. Rep.* **5**, 13681 (2015).
2. Doyle, M.E., Theodorakis, M.J., Holloway, H.W., *et al.* The importance of the nine-amino acid C-terminal sequence of exendin-4 for binding to the GLP-1 receptor and for biological activity. *Regul. Pept.* **114(2-3)**, 153-158 (2003).
3. Nalin, L., Selvaraju, R.K., Velikyan, I., *et al.* Positron emission tomography imaging of the glucagon-like peptide-1 receptor in healthy and streptozotocin-induced diabetic pigs. *Eur. J. Nucl. Med. Mol. Imaging* **41(9)**, 1800-1810 (2014).
4. Zhang, L., Zhang, L., Li, Y., *et al.* The novel dual GLP-1/GIP receptor agonist DA-CH5 is superior to single GLP-1 receptor agonists in the MPTP model of Parkinson's disease. *J. Parkinsons Dis.* **10(2)**, 523-542 (2020).

#### 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.

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