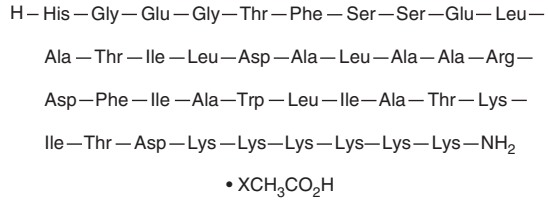
PRODUCT INFORMATION

Glepaglutide (acetate)

Item No. 41274



Synonym: ZP1848
Peptide Sequence: HGEGTFSSELATILDALAARDFIAWLIATKITDKKKKKK-NH_2
MF: $C_{197}H_{325}N_{53}O_{55} \bullet XC_2H_4O_2$
FW: 4,316.1
Purity: ≥95%
Supplied as: A 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

Glepaglutide (acetate) is supplied as a solid. Aqueous solutions of glepaglutide (acetate) can be prepared by directly dissolving the solid in aqueous buffers. Glepaglutide (acetate)is slightly soluble (0.1-1 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Glepaglutide is a peptide agonist of the glucagon-like peptide 2 receptor (GLP-2R).[1] It selectively induces cAMP accumulation in HEK293 cells expressing GLP-2R over those expressing GLP-1R (EC_{50}s = 0.24 and 8.7 nM, respectively, for the human receptors). Glepaglutide (10 mg/kg per day for 26 weeks) increases mucosal hyperplasia thickness in the duodenum, jejunum, and ileum, as well as increases small intestinal wet weight and length, an effect that lasts six weeks post-administration, in rats.[2] It also increases small intestinal mass and length, as well as reduces ileal levels of α-1-acid glycoprotein (AGP 1) and myeloperoxidase (MPO), in a rat model of inflammatory bowel disease (IBD) induced by indomethacin (Item No. 70270) when administered at a dose of 400 nmol/kg twice per day.[3]

References

1. Hargrove, D.M., Alagarsamy, S., Croston, G., *et al.* Pharmacological characterization of apraglutide, a novel long-acting peptidic glucagon-like peptide-2 agonist, for the treatment of short bowel syndrome. *J. Pharmacol. Exp. Ther.* **373(2)**, 193-203 (2020).
2. Glerup, P., Sonne, K., Berner-Hansen, M., *et al.* Short- versus long-term, gender and species differences in the intestinotrophic effects of long-acting glucagon-like peptide 2 analog. *Physiol. Res.* **71(2)**, 323-326 (2022).
3. Skarbaliene, J., Mathiesen, J.M., Larsen, B.D., *et al.* Glepaglutide, a novel glucagon-like peptide-2 agonist, has anti-inflammatory and mucosal regenerative effects in an experimental model of inflammatory bowel disease in rats. *BMC Gastroenterol.* **23(1)**, 79 (2023).

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