

PRODUCT INFORMATION



Cotadutide (acetate)

Item No. 40714

Synonym: MEDI0382
Peptide Sequence: HSQGTFTSD-oxohexadecyl-L-glutamyl-K-SEYLDSEARDFVAWLEAGG-OH
MF: $C_{16}H_{252}N_{42}O_{55} \cdot C_2H_4O_2$
FW: 3,788.1
Purity: $\geq 95\%$
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

Cotadutide (acetate) is supplied as a solid. A stock solution may be made by dissolving the cotadutide (acetate) in water. Cotadutide (acetate) is slightly soluble (0.1-1 mg/ml) in water. We do not recommend storing the aqueous solution for more than one day.

Description

Cotadutide is a synthetic peptide and dual agonist of the glucagon-like peptide 1 receptor (GLP-1R) and glucagon receptor (GCGR) that is biased toward GLP-1R.^{1,2} It increases cAMP accumulation in CHO cells overexpressing recombinant human GLP-1R or GCGR ($EC_{50}s = 6.9$ and 10.2 pM, respectively).¹ It also enhances glucose-stimulated insulin secretion in INS-1 832/3 rat pancreatic β -cells. Cotadutide (10 nmol/kg) reduces food intake and fat mass, as well as improves glucose tolerance in diet-induced obese (DIO) mice. It also reduces food intake and body weight in wild-type but not *Glp1r* knockout mice, indicating these effects are *Glp-1r*-dependent, but reduces the hepatic lipid percentage in both wild-type and *Glp1r* knockout mice, indicating this as a *Gcgr*-dependent effect.² Cotadutide (10 nmol/kg) reduces total hepatic triglycerides, diglycerides, cholesterol, and free fatty acids, as well as reduces hepatic inflammation and fibrosis, in an *ob/ob* mouse model of non-alcoholic steatohepatitis (NASH) induced by a high-*trans* fat, high-fructose, and high-cholesterol diet.

References

1. Henderson, S.J., Konkar, A., Hornigold, D.C., *et al.* Robust anti-obesity and metabolic effects of a dual GLP-1/glucagon receptor peptide agonist in rodents and non-human primates. *Diabetes Obes. Metab.* **18(12)**, 1176-1190 (2016).
2. Boland, M.L., Laker, R.C., Mather, K., *et al.* Resolution of NASH and hepatic fibrosis by the GLP-1R/Gcgr dual-agonist Cotadutide via modulating mitochondrial function and lipogenesis. *Nat. Metab.* **2(5)**, 413-431 (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.

WARRANTY AND LIMITATION OF REMEDY
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