

PRODUCT INFORMATION



Exendin-3 (9-39) amide (trifluoroacetate salt)

Item No. 19890

Synonym:	Exendin (9-39)
MF:	$C_{149}H_{234}N_{40}O_{47}S \cdot XCF_3COOH$ H-Asp-Leu-Ser-Lys-Gln-Met-Glu-Glu-Glu-Ala-
FW:	3,369.8 Val-Arg-Leu-Phe-Ile-Glu-Trp-Leu-Lys-Asn-Gly-
Purity:	≥95%
UV/Vis.:	λ_{max} : 203 nm Gly-Pro-Ser-Ser-Gly-Ala-Pro-Pro-Pro-Ser-NH ₂
Supplied as:	A crystalline solid
Storage:	-20°C • XCF ₃ COOH
Stability:	≥4 years

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

Laboratory Procedures

Exendin-3 (9-39) amide (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the exendin-3 (9-39) amide (trifluoroacetate salt) in the solvent of choice. Exendin-3 (9-39) amide (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of exendin-3 (9-39) amide (trifluoroacetate salt) in ethanol is approximately 0.5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of exendin-3 (9-39) amide (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of exendin-3 (9-39) amide (trifluoroacetate salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Exendin-3 (9-39) amide is a truncated form of the exendin-4 (48-86) amide (Item No. 11096) peptide that acts as a potent competitive antagonist for the glucagon-like peptide 1 receptor (GLP-1R; $K_d = 1.7$ nM in CHL cells transfected with cloned human GLP-1).¹ It inhibits exendin-3-induced increases in cAMP levels in guinea pig pancreas cells ($IC_{50} = 20$ nM).² Exendin-3 (9-39) amide administration in the hypothalamus (10 and 100 μ g, i.c.v.) reverses GLP-1 inhibition of feeding behavior in rats.³

References

1. Thorens, B., Porret, A., Bühler, L., *et al.* Cloning and functional expression of the human islet GLP-1 receptor. Demonstration that exendin-4 is an agonist and exendin(9-39) an antagonist of the receptor. *Diabetes* **42**(11), 1678-1682 (1993).
2. Ruffman, J.-P., Singh, L., and Eng, J. Exendin-3, a novel peptide from *Heloderma horridum* venom, interacts with vasoactive intestinal peptide receptors and a newly described receptor on dispersed acini from guinea pig pancreas. Description of exendin-3(9-39) amide, a specific exendin receptor antagonist. *J. Biol. Chem.* **266**(5), 2897-2908 (1991).
3. Turton, M.D., O'Shea, D., Gunn, I., *et al.* A role for glucagon-like peptide-1 in the central regulation of feeding. *Nature* **379**(6560), 69-72 (1996).

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, 04/09/2024

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