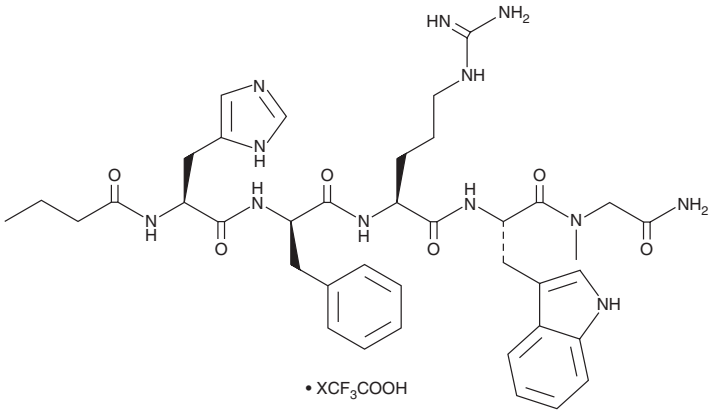
PRODUCT INFORMATION

RO27-3225 (trifluoroacetate salt)

Item No. 41558

CAS Registry No.:	1373926-49-8
Formal Name:	N-(1-oxobutyl)-L-histidyl-D-phenylalanyl-L-arginyl-L-tryptophyl-N^2-methyl-glycinamide, trifluoroacetate salt
Synonym:	Oxobutyl-His-Phe-Arg-Trp-{Sar}-NH_2
Peptide Sequence:	Oxobutyl-HFRWX-NH_2 (X=Sarcosine)
MF:	$C_{39}H_{52}N_{12}O_6 \bullet XCF_3COOH$
FW:	784.9
Purity:	≥98%
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

RO27-3225 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the RO27-3225 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. RO27-3225 (trifluoroacetate salt) is soluble (≥10 mg/ml) in DMSO and sparingly soluble (1-10 mg/ml) in ethanol.

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 RO27-3225 (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. RO27-3225 (trifluoroacetate salt) is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

RO27-3225 is a peptide agonist of melanocortin receptor 4 (MC4R).[1] It selectively induces cAMP production in cells expressing human MC4R (EC_{50} = 0.3 nM) over cells expressing MC1R, MC3R, or MC5R (EC_{50}s = 1.1, 97.9, and 139.4 nM, respectively). *In vivo*, RO27-3225 (3, 5, and 10 nmol/animal) reduces food intake in rats, as well as in obese *db/db* mice when administered at a dose of 200 µg/animal. RO27-3225 also reduces brain edema, blood-brain barrier (BBB) permeability, and hippocampal Il-1β and Tnf-α levels in a rat model of intra-abdominal hypertension induced by hemorrhagic shock and resuscitation.[2]

References

1. Benoit, S.C., Schwartz, M.W., Lachey, J.L., *et al.* A novel selective melanocortin-4 receptor agonist reduces food intake in rats and mice without producing aversive consequences. *J. Neurosci.* **20(9),** 3442-3448 (2000).
2. Liu, D., Zhang, H.-G., Zhao, Z.-A., *et al.* Melanocortin MC4 receptor agonists alleviate brain damage in abdominal compartment syndrome in the rat. *Neuropeptides* **49,** 55-61 (2015).

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