# PRODUCT INFORMATION

## Ac-(D-Arg)-CEH-(D-Phe)-RWC-$NH_2$ (trifluoroacetate salt)

*Item No. 41469*

**Formal Name:** 3-((4R,7S,10S,13R,16S,19S,22R)-16-((1H-imidazol-5-yl)methyl)-7-((1H-indol-3-yl)methyl)-22-((R)-2-acetamido-5-guanidinopentanamido)-13-benzyl-4-carbamoyl-10-(3-guanidinopropyl)-6,9,12,15,18,21-hexaoxo-1,2-dithia-5,8,11,14,17,20-hexaazacyclotricosan-19-yl)propanoic acid, trifluorocetate salt

**Synonym:** Ac-dR[CEHdFRWC]-$NH_2$

**Peptide Sequence:** Ac-rCEHfRWC-$NH_2$

**MF:** $C_{51}H_{70}N_{18}O_{11}S_2 \bullet XCF_3COOH$

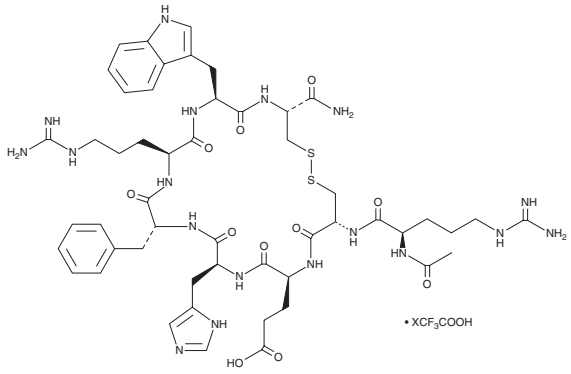
**FW:** 1,175.4

**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

Ac-(D-Arg)-CEH-(D-Phe)-RWC-$NH_2$ is supplied as a solid. A stock solution may be made by dissolving the Ac-(D-Arg)-CEH-(D-Phe)-RWC-$NH_2$ in the solvent of choice, which should be purged with an inert gas. Ac-(D-Arg)-CEH-(D-Phe)-RWC-$NH_2$ is soluble (≥10 mg/ml) in organic solvents such as ethanol and DMSO.

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 Ac-(D-Arg)-CEH-(D-Phe)-RWC-$NH_2$ can be prepared by directly dissolving the solid in aqueous buffers. Ac-(D-Arg)-CEH-(D-Phe)-RWC-$NH_2$ is soluble (≥10 mg/ml) in PBS (pH 7.2).

### Description

Ac-(D-Arg)-CEH-(D-Phe)-RWC-$NH_2$ is a cyclic peptide and an agonist of melanocortin receptor 4 (MC4R).[1] It induces cAMP release in HEK293 cells expressing human MC4R ($EC_{50}$ = 0.28 nM). Ac-(D-Arg)-CEH-(D-Phe)-RWC-$NH_2$ is selective for MC4R over MC1R, MC3R, and MC5R ($K_i$s = 0.55, 16.78, 56.79, and >500 nM, respectively). It decreases food intake and body weight in a rat model of diet-induced obesity when administered at doses of 0.075 or 0.299 µmol/kg.

### Reference

1. Mayer, J.P., Hsiung, H.M., Flora, D.B., *et al*. Discovery of a β-MSH-derived MC-4R selective agonist. *J. Med. Chem.* **48(9)**, 3095-3098 (2005).



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