

# PRODUCT INFORMATION

## Difelikefalin (trifluoroacetate salt)

Item No. 34542

**Formal Name:** N1-(D-phenylalanyl-D-phenylalanyl-D-leucyl-D-lysyl)-4-amino-4-piperidinecarboxylic acid, trifluoroacetate salt

**Synonyms:** CR845, FE 202845

**MF:**  $C_{36}H_{53}N_7O_6 \cdot XCF_3COOH$

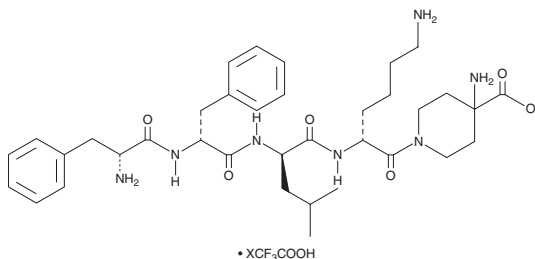
**FW:** 679.9

**Purity:**  $\geq 98\%$

**Supplied as:** A solid

**Storage:**  $-20^\circ C$

**Stability:**  $\geq 2$  years



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

### Laboratory Procedures

Difelikefalin (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the difelikefalin (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Difelikefalin (trifluoroacetate salt) is soluble in ethanol.

### Description

Difelikefalin is a  $\kappa$ -opioid receptor (KOR) agonist.<sup>1</sup> It activates KOR in HEK293 cells expressing the human receptor ( $EC_{50} = 0.16$  nM in a transactivation assay) and inhibits forskolin-induced cAMP production in R1.G1 mouse thymoma cells ( $EC_{50} = 0.048$  nM). Difelikefalin is selective for KOR over the  $\mu$ -opioid receptor (MOR;  $EC_{50} = >1$   $\mu$ M in a transactivation assay). It reduces acetic acid-induced writhing, as well as scratching behavior induced by the KOR antagonist GNTI, in mice ( $ED_{50}$ s = 0.07 and 0.05 mg/kg, respectively).

### Reference

1. Schteingart, C.D., Menzaghi, F., Jiang, G., *et al.* Synthetic peptide amides. *Cara Therapeutics, Inc.* US 7,402,564 B1 (2008).

#### 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.

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