

# PRODUCT INFORMATION



## MMK1 (trifluoroacetate salt)

Item No. 31536

<b>Formal Name:</b>	L-leucyl-L- $\alpha$ -glutamyl-L-seryl-L-isoleucyl-L-phenylalanyl-L-arginyl-L-seryl-L-leucyl-L-leucyl-L-phenylalanyl-L-arginyl-L-valyl-L-methionine, trifluoroacetate salt	
<b>Synonyms:</b>	LESIFRSLLFRVM, Leu-Glu-Ser-Ile-Phe-Arg-Ser-Leu-Leu-Phe-Arg-Val-Met	H—Leu—Glu—Ser—Ile—Phe—Arg—Ser—Leu—Leu—Phe—Arg—Val—Met—OH • XCF <sub>3</sub> COOH
<b>MF:</b>	C <sub>75</sub> H <sub>123</sub> N <sub>19</sub> O <sub>18</sub> S • XCF <sub>3</sub> COOH	
<b>FW:</b>	1,611.0	
<b>Purity:</b>	≥98%	
<b>Supplied as:</b>	A crystalline solid	
<b>Storage:</b>	-20°C	
<b>Stability:</b>	≥4 years	

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

### Laboratory Procedures

MMK1 (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the MMK1 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. MMK1 (trifluoroacetate salt) is soluble in methanol.

### Description

MMK1 is an agonist of formyl peptide receptor 2 (FPR2), which was previously known as formyl peptide receptor-like 1 (FPRL1).<sup>1</sup> MMK1 induces calcium flux in CHO cells expressing human FPR2 and G<sub>α16</sub> (EC<sub>50</sub> = <2 nM) but not in CHO cells expressing G<sub>α16</sub> alone or in combination with FPR1 (EC<sub>50</sub>s = >10,000 nM for both). It induces chemotaxis of isolated human peripheral blood monocytes and neutrophils in a concentration-dependent manner.<sup>2</sup> MMK1 (10 μM) increases production of the proinflammatory cytokines IL-1β and IL-6 in isolated human monocytes. Intracerebroventricular administration of MMK1 (100 pmol/mouse) increases the percentage of time spent in the open arms of the elevated plus maze in mice, indicating anxiolytic-like activity.<sup>3</sup>

### References

1. Klein, C., Paul, J.I., Sauv , K., *et al.* Identification of surrogate agonists for the human FPRL-1 receptor by autocrine selection in yeast. *Nat. Biotechnol.* **16(13)**, 1334-1337 (1998).
2. Hu, J.Y., Le, Y., Gong, W., *et al.* Synthetic peptide MMK-1 is a highly specific chemotactic agonist for leukocyte FPRL1. *J. Leukoc. Biol.* **70(1)**, 155-161 (2001).
3. Zhao, H., Sonada, S., Yoshikawa, A., *et al.* Rubimetide, humanin, and MMK1 exert anxiolytic-like activities via the formyl peptide receptor 2 in mice followed by the successive activation of DP<sub>1</sub>, A<sub>2A</sub>, and GABA<sub>A</sub> receptors. *Peptides* **83**, 16-20 (2016).

#### 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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