PRODUCT INFORMATION

Myr-Tat-CBD3 (trifluoroacetate salt)

Item No. 37465

Formal Name: N-myristoyl-L-tyrosylglycyl-L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl-L-arginyl-L-alanyl-L-arginyl-L-seryl-L-arginyl-L-leucyl-L-alanyl-L-α-glutamyl-L-leucyl-L-arginylglycyl-L-valyl-L-prolyl-L-arginylglycyl-L-leucine, trifluoroacetate salt

Synonyms: N-myristate-Tat-CBD3, Myr-Tat-Calcium Channel-binding Domain 3

Peptide Sequence: myristoyl-YGRKKRRQRRRARSRLAELRGVPRGL-OH

MF: $C_{148}H_{269}N_{59}O_{33} \bullet XCF_3COOH$

FW: 3,403.1

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Myr—Tyr—Gly—Arg—Lys—Lys—Arg—Arg—Gln—Arg—Arg—
Arg—Ala—Arg—Ser—Arg—Leu—Ala—Glu—Leu—Arg—
Gly—Val—Pro—Arg—Gly—Leu—OH
• XCF_3COOH

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

Laboratory Procedures

Myr-Tat-CBD3 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the Myr-Tat-CBD3 (trifluoroacetate salt) in water. We do not recommend storing the aqueous solution for more than one day.

Description

Myr-Tat-CBD3 is an inhibitor of the protein-protein interaction between the N-type voltage-gated calcium channel $Ca_v2.2$ and collapsin response mediator protein 2 (CRMP2).[1] It inhibits the $Ca_v2.2$-CRMP2 interaction by approximately 81% when used at a concentration of 10 µM and inhibits potassium-induced calcium influx in primary rat dorsal root ganglion (DRG) neurons (IC_{50} = ~2.8 µM). Myr-Tat-CBD3 (20 µM) inhibits calcium, but not sodium, currents in primary DRG neurons. Intrathecal administration of myr-Tat-CBD3 (20 µg/5 µl) prevents carrageenan-induced decreases in paw withdrawal latencies in rats. Myr-Tat-CBD3 decreases cue-induced reinstatement of cocaine-seeking behavior in rats.[2]

References

1. François-Moutal, L., Wang, Y., Moutal, A., *et al.* A membrane-delimited N-myristoylated CRMP2 peptide aptamer inhibits CaV2.2 trafficking and reverses inflammatory and postoperative pain behaviors. *Pain* **156(7)**, 1247-1264 (2015).
2. Buchta, W.C., Moutal, A., Hines, B., *et al.* Dynamic CRMP2 regulation of CaV2.2 in the prefrontal cortex contributes to the reinstatement of cocaine seeking. *Mol. Neurobiol.* **57(1)**, 346-357 (2020).

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
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