

Product Name: EM 163

Catalog No.: 7010

Batch No.: 1

CAS Number: 1206480-93-4

IUPAC Name: 1-Methyl-2,5-bis[[[(1S)-2-methyl-1-(1-pyrrolidinylcarbonyl)propyl]](3-phenylpropyl)amino]carbonyl]pyridinium iodide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄₄H₆₀IN₅O₄·1¼H₂O

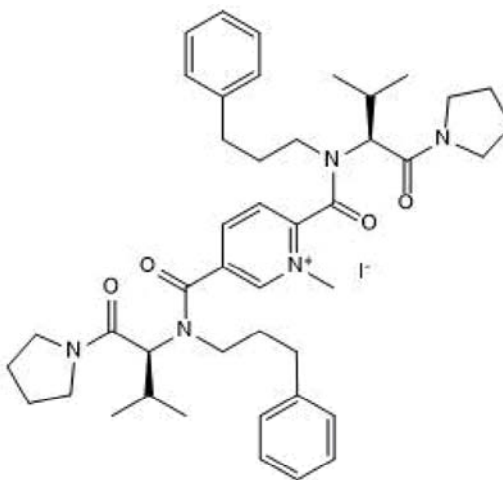
Batch Molecular Weight: 872.42

Physical Appearance: Orange solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.9% purity

Chiral HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	60.58	7.22	8.03
Found	60.24	7.04	7.88

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

EM 163 is a TIR-TIR interaction inhibitor, that is a TIR (Toll/interleukin-1 receptor) domain peptidomimetic of MyD88 protein. EM 163 targets TIR domains in IL-1 receptors blocking the interaction with MyD88. EM 163 inhibits staphylococcal enterotoxin B (SEB)-induced inflammatory cytokine production in vivo. EM 163 protects mice from SEB shock-induced death. In rat hippocampal neurons in vitro, EM 163 blocks the activation of p38 and the inhibitory effects of IL-1 β on protein synthesis triggered by chemically-induced long-term potentiation (LTP).

Physical and Chemical Properties:

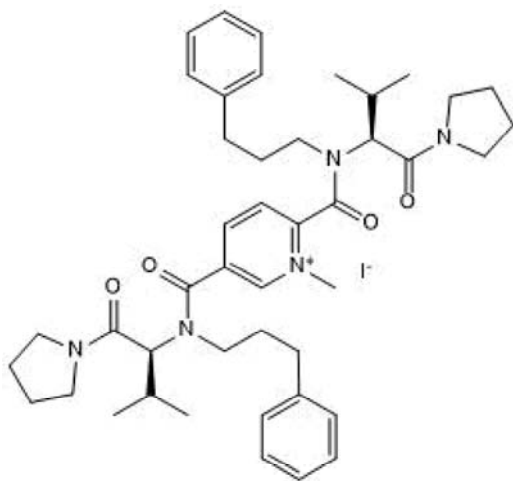
Batch Molecular Formula: C₄₄H₆₀IN₅O₄.1 $\frac{1}{4}$ H₂O

Batch Molecular Weight: 872.42

Physical Appearance: Orange solid

Minimum Purity: \geq 98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Prieto *et al* (2019) Inhibition of LTP-induced translation by IL-1 β reduces the level of newly synthesized proteins in hippocampal dendrites. *ACS Chem.Neurosci.* **20** 1197. PMID: 30695637.

Lucas and Maes (2013) Role of the toll like receptor (TLR) radical cycle in chronic inflammation: possible treatments targeting the TLR4 pathway. *Mol.Neurobiol.* **48** 190. PMID: 23436141.

Kissner *et al* (2012) Therapeutic inhibition of pro-inflammatory signaling and toxicity to staphylococcal enterotoxin B by a synthetic dimeric BB-loop mimetic of MyD88. *PLoS One* **7** e40773. PMID: 22848400.

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