PRODUCT INFORMATION

Philanthotoxin 74 (hydrochloride)
Item No. 14607

CAS Registry No.: 1227301-51-0
Formal Name: N-[7-[(4-aminobuty]lamino)heptyl]-4-hydroxy-αS-[(1-oxobutyl)amino]-benzenepropanamide, dihydrochloride
Synonym: PhTx-74
MF: C_{24}H_{42}N_{4}O_{3} • 2HCl
FW: 507.5
Purity: ≥98%
Supplied as: A solid
Storage: Room temperature
Stability: ≥4 years

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

Laboratory Procedures

PhTx-74 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the PhTx-74 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. PhTx-74 (hydrochloride) is soluble in the organic solvent DMSO. It is also soluble in water. The solubility of PhTx-74 (hydrochloride) in DMSO and water is approximately 100 mM. We do not recommend storing the aqueous solution for more than one day.

Description

PhTx-74 is a synthetic analog of the naturally-occurring wasp venom toxin philanthotoxin-4,3,3. It is a subtype-selective AMPA receptor antagonist that inhibits homomeric GluR1 and GluR3 as well as heteromeric GluR1/2 receptors (80-100% of glutamate-evoked currents inhibited at 100 µM). It exhibits minimal to no effect on monomeric GluR2 or heteromeric GluR2/3 receptors at concentrations up to 500 µM.\(^1\) PhTx-74 inhibits the GluR5(Q) receptor with a \(K_i\) value of 0.29 µM.\(^2\)

References