

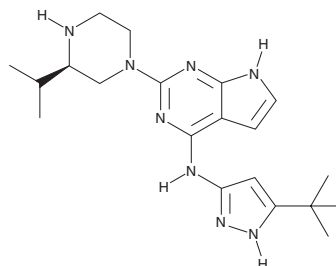
PRODUCT INFORMATION



Spastazoline

Item No. 43034

CAS Registry No.: 2351882-11-4
Formal Name: N-[5-(1,1-dimethylethyl)-1H-pyrazol-3-yl]-2-[(3R)-3-(1-methylethyl)-1-piperazinyl]-7H-pyrrolo[2,3-d]pyrimidin-4-amine
MF: C₂₀H₃₀N₈
FW: 382.5
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Spastazoline is supplied as a solid. A stock solution may be made by dissolving the spastazoline in the solvent of choice, which should be purged with an inert gas. Spastazoline is soluble (≥10 mg/ml) in ethanol and DMSO.

Description

Spastazoline is an inhibitor of spastin (IC₅₀ = 99 nM for the human enzyme).¹ It is selective for spastin over a panel of 64 kinases but does inhibit tropomyosin-related kinase A (TrkA) by 65% at 2 μM. Spastazoline (10 μM) increases the number of cells with intracellular bridges during cell division, indicating microtubule stabilization, in HeLa cells expressing the recombinant human M87 isoform of spastin that contains the alternatively spliced exon 4 (M87e4). It inhibits neurite outgrowth in primary mouse hippocampal neurons when used at concentrations of 1 and 5 μM. Spastazoline (20 mg/kg, i.p.) increases spinal cord injury-induced motor impairments in mice, but it does not affect motor function in sham mice.² It also delays spinal cord inflammation resolution in the same mice.

References

1. Cupido, T., Pisa, R., Kelley, M.E., *et al.* Designing a chemical inhibitor for the AAA protein spastin using active site mutations. *Nat. Chem. Biol.* **15**(5), 444-452 (2019).
2. Yang, J., Zhang, Y., Cai, Z., *et al.* Inhibition of spastin impairs motor function recovery after spinal cord injury. *Brain Res. Bull.* **205**, 110806 (2023).

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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