

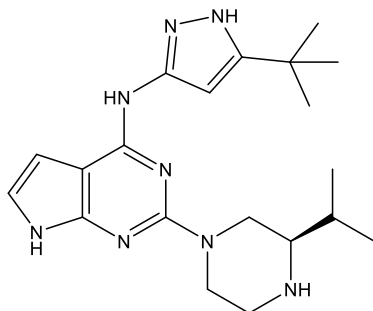
Catalog # 10-4240

Spastazoline

CAS# 2351882-11-4

N-(5-tert-Butyl-1H-pyrazol-3-yl)-2-[(3R)-3-propan-2-ylpiperazin-1-yl]-7H-pyrrolo[2,3-d]pyrimidin-4-amine

Lot # FBA8034



Spastazoline is an ATP-competitive inhibitor ($IC_{50} = 99$ nM) of the microtubule-severing AAA protein spastin. It is selective against four related AAA proteins (XL-katarin, Hs-FIGL1, Mm-VCP, and Hs-PCH2). It impaired recovery of motor function in a mouse model of spinal cord injury.² Reverses the effects of 14-3-3 agonist Fusicocin A on neurite outgrowth and regeneration *in vitro*.³ A new and interesting tool for the study of the assembly, disassembly, or maintenance of microtubule-based cellular structures.

- 1) Cupido *et al.* (2019), *Designing a chemical inhibitor for the AAA protein spastin using active site mutations*; Nat. Chem. Biol. **15** 444
- 2) Yang *et al.* (2023), *Inhibition of spastin impairs motor function recovery after spinal cord injury*; Brain Res. Bull. **205** 110806
- 3) Liu *et al.* (2024), *14-3-3 protein augments the protein stability of phosphorylated spastin and promotes the recovery of spinal cord injury through its agonist intervention*; eLife **12** RP90184

PHYSICAL DATA

Molecular Weight:	382.52
Molecular Formula:	C ₂₀ H ₃₀ N ₈
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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