

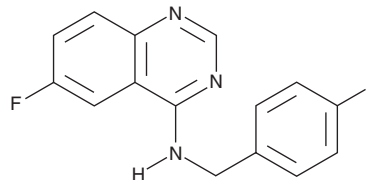
PRODUCT INFORMATION



Spautin-1

Item No. 17769

CAS Registry No.: 1262888-28-7
Formal Name: 6-fluoro-N-[(4-fluorophenyl)methyl]-4-quinazolinamine
MF: C₁₅H₁₁F₂N₃
FW: 271.3
Purity: ≥95%
UV/Vis.: λ_{max}: 225, 283, 323, 336 nm
Supplied as: A crystalline 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

Spautin-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the spautin-1 in the solvent of choice, which should be purged with an inert gas. Spautin-1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of spautin-1 in these solvents is approximately 10, 15, and 30 mg/ml, respectively.

Spautin-1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, spautin-1 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Spautin-1 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Spautin-1 is an autophagy inhibitor, inducing cell death in human breast cancer Bcap-37 cells grown in glucose-free media (EC₅₀ = ~1.25 μM).¹ It does not significantly affect the viability of Bcap-37 cells grown in complete media. Spautin-1 promotes the degradation of Vps34 PI3K complex by inhibiting the deubiquitinating enzymes USP10 and USP13 (IC₅₀s = 0.58 and 0.69 μM, respectively).¹ It is used to elucidate the role of autophagy in cellular processes.^{2,3} Spautin-1 has also been used to demonstrate roles for autophagy in viral infection.^{4,5}

References

1. Liu, J., Xia, H., Kim, M., *et al.* Beclin1 controls the levels of p53 by regulating the deubiquitination activity of USP10 and USP13. *Cell* **147**, 223-234 (2011).
2. Salabei, J.K., Cummins, T.D., Singh, M., *et al.* PDGF-mediated autophagy regulates vascular smooth muscle cell phenotype and resistance to oxidative stress. *Biochem. J.* **451**(3), 375-388 (2013).
3. Vakifahmetoglu-Norberg, H., Kim, M., Xia, H.-G., *et al.* Chaperone-mediated autophagy degrades mutant p53. *Genes Dev.* **27**(15), 1718-1730 (2013).
4. Mateo, R., Nagamine, C.M., Spagnolo, J., *et al.* Inhibition of cellular autophagy deranges dengue virion maturation. *J. Virol.* **87**(3), 1312-1321 (2013).
5. Bouley, S.J., Maginnis, M.S., Derdowski, A., *et al.* Host cell autophagy promotes BK virus infection. *Virology* **456-457**, 87-95 (2014).

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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