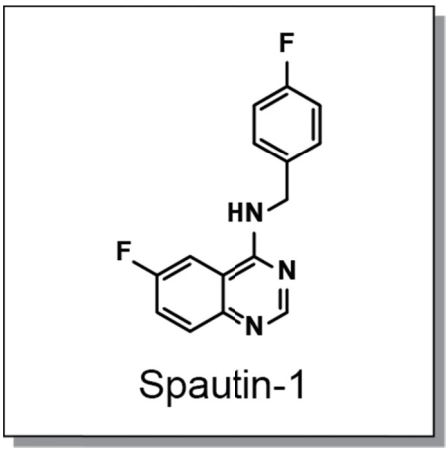
Product Specification Sheet

Product Name: Spautin-1

Catalog Number: C3430-2 (powder)
C3430-2s (10mM in DMSO)

Package Size: 2 mg



Technical information:

Chemical Formula:	$C_{15}H_{11}F_2N_3$
CAS #:	1262888-28-
Molecular Weight:	271.26
Purity:	>98%
Formulation:	White solid
Solubility:	Soluble in DMSO up to 100 mM
Chemical Name:	6-fluoro-N-(4-fluorobenzyl)quinazolin-4-amine
Storage:	Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Handling:

- For C3430-2 (powder), add 0.737 mL of DMSO to make 10 mM solution.
- For C3430-2s, before open the vial, centrifuge the vial at 500rpm x 1 min in a 50 mL conical tube to ensure full recovery of sample.

Biological Activity: Spautin-1 is a specific and potent autophagy inhibitor (IC_{50}=0.74μM). It promotes the degradation of Vps34 PI3 kinase complexes by inhibiting two ubiquitin specific peptidases, USP10 and USP13, that target the Beclin1 subunit of Vps34 complexes. Since USP10 mediates the deubiquitination of p53, regulating deubiquitination activity of USP10 and USP13 by Beclin1 provides a mechanism for Beclin1 to control the levels of p53. By this mechanism, Spautin-1 increased cancer cell death in the setting of nutrient deprivation when autophagy would normally act as a survival mechanism in these metabolically stressed cells.

Reference:

1. Junli Liu, et al. Beclin1 Controls the Levels of p53 by Regulating the Deubiquitination Activity of USP10 and USP13. Cell (2011), 147(1), 223-234.
2. Joseph D. Mancias, et al. Targeting Autophagy Addiction in Cancer. Oncotarget (2011). In press.

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