

Product Name: AZ1 USP25/28 inhibitor

Catalog No.: 7845

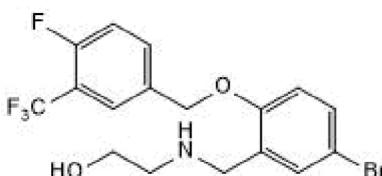
Batch No.: 1

CAS Number: 2165322-94-9

IUPAC Name: 2-[[[5-Bromo-2-[[4-fluoro-3-(trifluoromethyl)phenyl]methoxy]phenyl]methyl]amino]ethanol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₆BrF₄NO₂
Batch Molecular Weight: 422.21
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	48.36	3.82	3.32
Found	47.7	3.76	3.29

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

AZ1 USP25/28 inhibitor is a selective inhibitor of USP28 (IC₅₀ = 0.6 μM, K_d = 0.2 - 3.7 μM) and USP25 (IC₅₀ = 0.7 μM). AZ1 USP25/28 inhibitor exhibits selectivity for USP25 and USP28 over other DUB family members. The compound dose-dependently reduces c-Myc levels in colon carcinoma cells in vitro and induces cell death (EC₅₀ values are 18 - 20 μM). In a mouse Alzheimer's disease model, AZ1 USP25/28 inhibitor reduces amyloid burden, attenuates microglial activation and improves synaptic and cognitive function.

Physical and Chemical Properties:

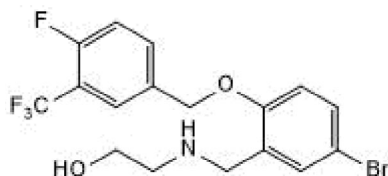
Batch Molecular Formula: C₁₇H₁₆BrF₄NO₂

Batch Molecular Weight: 422.21

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Zheng et al (2022) USP25 inhibition ameliorates Alzheimer's pathology through the regulation of APP processing and Aβ generation. *J.Clin.Invest.* **132** e152170. PMID: 35229730.

Zheng et al (2021) Trisomy 21-induced dysregulation of microglial homeostasis in Alzheimer's brains is mediated by USP25. *Sci.Adv.* **7** eabe1340. PMID: 33523861.

Wrigley et al (2017) Identification and characterization of dual inhibitors of the USP25/28 deubiquitinating enzyme subfamily. *ACS Chem.Biol.* **12** 3113. PMID: 29131570.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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