



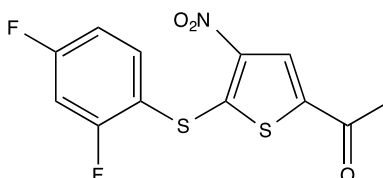
### Catalog # 10-4125

### P22077

CAS# 1247819-59-5

1-(5-((2,4-Difluorophenyl)thio)-4-nitrothiophen-2-yl)ethanone

Lot # FBS1064



P22077 is a selective (tested against 23 other DUBs) inhibitor of USP7 ( $IC_{50} = 8 \mu M$ ) and the closely related USP47.<sup>1,2</sup> It destabilizes claspin, a scaffolding protein involved in regulating Chk1 kinase, a DNA damage response enzyme.<sup>2</sup> P22077 inhibits neuroblastoma growth *via* induction of p53-mediated apoptosis.<sup>3</sup> N-Myc was destabilized by P22077 inhibition of USP7 in human neuroblastoma cells.<sup>4</sup> It was able to stabilize p53 levels in conjunction with an Mdm2 inhibitor (Nutlin-3, Cat# 10-1350) in HCT116 colorectal carcinoma cells.<sup>5</sup>

- 1) Tian *et al.* (2011), *Characterization of Selective Ubiquitin and Ubiquitin-like Protease Inhibitors Using a Fluorescence-Based Multiplex Assay Format*; Assay Drug Dev. Technol. **9** 165
- 2) Altun *et al.* (2011), *Activity-based chemical proteomics accelerates inhibitor development for deubiquitinating enzymes*; Chem.Biol. **18** 1401
- 3) Fan *et al.* (2013), *USP7 inhibitor P22077 inhibits neuroblastoma growth via inducing p53-mediated apoptosis* Cell Death Dis. **4** e867
- 4) Tavana *et al.* (2016), *HAUSP deubiquitinates and stabilizes M-Myc in neuroblastoma*; Nat.Med. **22** 1180
- 5) Tavana *et al.* (2018), *Targeting HAUSP in both p53 wildtype and p53-mutant tumors*; Cell Cycle **May 15 epub 1**

### PHYSICAL DATA

Molecular Weight:	315.32
Molecular Formula:	C <sub>12</sub> H <sub>7</sub> F <sub>2</sub> NO <sub>3</sub> S <sub>2</sub>
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 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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