

P22077**USP7 and USP47 inhibitor**

1-[5-[(2,4-Difluorophenyl)thio]-4-nitro-2-thienyl]-ethanone

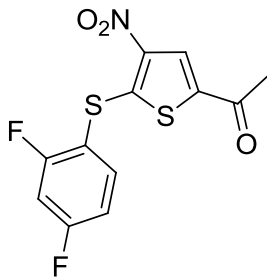
Cat. # SI9699

Background: P22077 is a cell permeable inhibitor of the ubiquitin-specific protease USP7 ($IC_{50}=8.6\mu M$), and the closely related deubiquitinase (DUB) USP47^{1,2}. P22077 showed weak or no inhibition ($EC_{50}>50\mu M$) towards a panel of 14 isopeptidases and other proteases. Treatment of cells with P22077 (20-40 μM) causes an accumulation of K48-linked ubiquitinated species, and down regulation of the USP7 targets HDM2 and caspin.

Application: Inhibition of USP7 and USP47 activity.

Product Information

CAS No.	1247819-59-5
Purity:	>98% (HPLC); NMR (Conforms)
Molecular Weight:	315.3
Physical State:	Light powder
Solubility:	DMSO
Storage:	Store desiccated as supplied at 4°C for up to 2 years. Store solutions at -20°C for up to one month.

**Formula:** $C_{12}H_7F_2NO_3S_2$ **References**

1. Altun, M., *et al.*, Activity-based chemical proteomics accelerates inhibitor development for deubiquitylating enzymes. *Chem Biol*, 2011. **18(11)**: p. 1401-12.
2. Tian, X., *et al.*, Characterization of selective ubiquitin and ubiquitin-like protease inhibitors using a fluorescence-based multiplex assay format. *Assay Drug Dev Technol*, 2011. **9(2)**: p. 165-73.

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