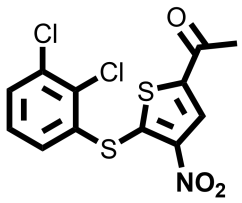
Xcess Biosciences Inc.
7144 N Harlem Ave #169
Chicago, IL 60631 USA

http://www.xcessbio.com
Toll free: 1-866-706-2330
Fax: 1-619- 810-0718
Email: info@xcessbio.com

Ubiquitin-specific Protease 7 (USP7) Inhibitor – P5091 (P005091)

Chemical Name: 1-(5-((2,3-dichlorophenyl)thio)-4-nitrothiophen-2-yl)ethanone



Molecular Weight:	348.22
Formula:	$C_{12}H_7Cl_2NO_3S_2$
Purity:	≥98%
CAS#:	882257-11-6
Solubility:	DMSO up to 100 mM
Storage	Powder: 4 °C 1 year DMSO: 4 °C 3 months -20 °C 1 year

Biological Activity:

P5091 (P005091) is a novel potent and selective inhibitor of ubiquitin-specific protease 7 (USP7) with an IC_{50} ~4.2 μM. It does not inhibit other DUBs or other families of cysteine proteases tested (EC_{50} > 100 mM). It induces apoptosis in MM cells resistant to conventional and bortezomib therapies. Biochemical and genetic studies showed that blockade of HDM2 and p21 abrogated P5091-induced cytotoxicity. In animal tumor model studies, P5091 was well tolerated, and it inhibited tumor growth, and prolongs survival. Combining P5091 with lenalidomide, HDAC inhibitor SAHA, or dexamethasone triggered synergistic anti-MM activity.

How to Use:

In vitro: P5091 was used at 5-12.5 μM final concentration in various in vitro assays.

In vivo: P5091 was administered through IV injection at 10 mg/kg twice weekly for 3 weeks

Reference:

1. Chauhan D, et al. A small molecule inhibitor of ubiquitin-specific protease-7 induces apoptosis in multiple myeloma cells and overcomes bortezomib resistance. (2012) Cancer Cell. 22(3):345-58.