TOCRIS
a bio-techne brand

Print Date: Jan 14th 2016

Certificate of Analysis

www.tocris.com

Product Name: **P 22077** **Catalog No.: 4485** **Batch No.: 1**

CAS Number: 1247819-59-5

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{12}H_7F_2NO_3S_2$

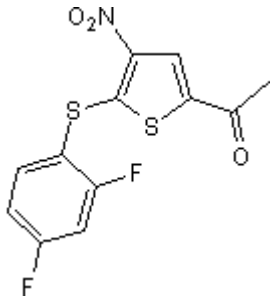
Batch Molecular Weight: 315.32

Physical Appearance: Pale yellow solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.51 (Ethyl acetate:Petroleum ether [4:1])

HPLC: Shows 99.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	45.71	2.24	4.44
Found	45.71	2.16	4.46

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Name: P 22077 **Catalog No.:** 4485 **Batch No.:** 1

CAS Number: 1247819-59-5

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

Description:

Inhibitor of ubiquitin-specific protease (USP) 7 (EC_{50} = 8.6 μM); also inhibits the closely related deubiquitinase (DUB) USP47. Demonstrates downstream inhibition of HDM2 and claspin in vitro. Inhibits USP7-mediated p53 deubiquitination. Blocks deubiquitination of Tip60 (KAT5) histone lysine acetyltransferase.

Physical and Chemical Properties:

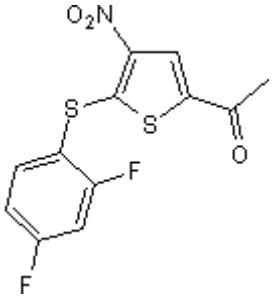
Batch Molecular Formula: $C_{12}H_7F_2NO_3S_2$

Batch Molecular Weight: 315.32

Physical Appearance: Pale yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°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. Our standard recommendations are:

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.

References:

Loch *et al* (2011) Deubiquitylase, deSUMOylase, and deISGylase activity microarrays for assay of substrate preference and functional modifiers. Mol.Cell.Proteomics ***10*** M100.002402. PMID: 20956615.

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. PMID: 21133675.

Altun *et al* (2011) Activity-based chemical proteomics accelerates inhibitor development for deubiquitylating enzymes. Chem.Biol. ***18*** 1401. PMID: 22118674.

Dar *et al* (2013) Deubiquitination of Tip60 by USP7 determines the activity of the p53-dependent apoptotic pathway. Mol.Cell Biol. ***33*** 3309. PMID: 23775119.