

## Certificate of Analysis

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**Product Name:** Necrosulfonamide

**Catalog No.:** 5025

**Batch No.:** 2

CAS Number: 1360614-48-7

IUPAC Name: (2E)-N-[4-[[[3-Methoxy-2-pyrazinyl)amino]sulfonyl]phenyl]-3-(5-nitro-2-thienyl)-2-propenamamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>18</sub>H<sub>15</sub>N<sub>5</sub>O<sub>6</sub>S<sub>2</sub>·½H<sub>2</sub>O

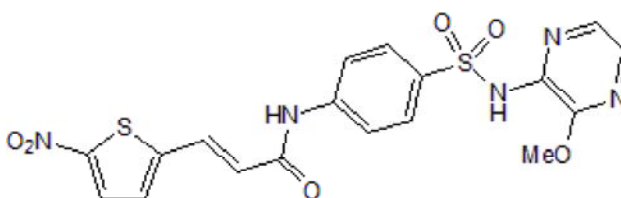
**Batch Molecular Weight:** 470.48

**Physical Appearance:** Yellow solid

**Solubility:** DMSO to 20 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	45.95	3.43	14.89
Found	46.35	3.19	14.5

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

**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](http://www.tocris.com/distributors)

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**Description:**

Necroptosis inhibitor. Blocks mixed lineage kinase domain-like protein (MLKL), a critical substrate of receptor-interacting serine-threonine kinase 3 (RIP3) during necrosis. Prevents MLKL-RIP1-RIP3 necrosome complex from interacting with downstream necrosis effectors. Binds and inhibits gasdermin D. Inhibits pyroptosis.

**Physical and Chemical Properties:**

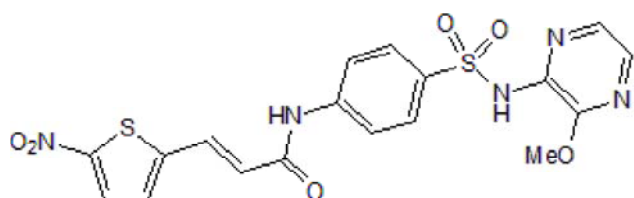
Batch Molecular Formula: C<sub>18</sub>H<sub>15</sub>N<sub>5</sub>O<sub>6</sub>S<sub>2</sub>.½H<sub>2</sub>O

Batch Molecular Weight: 470.48

Physical Appearance: Yellow solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 20 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:**

**Pandeya et al** (2019) Gasdermin D (GSDMD) as a new target for the treatment of infection. *Medchemcomm* **10** 660. PMID: 31191857.

**Kreuzaler et al** (2012) Killing a cancer: what are the alternatives? *Nat.Rev.Cancer*. **12** 411. PMID: 22576162.

**Sun et al** (2012) Mixed lineage kinase domain-like protein mediates necrosis signaling downstream of RIP3 kinase. *Cell* **148** 213. PMID: 22265413.

**Zhou et al** (2012) New components of the necroptotic pathway. *Protein Cell* **3** 811. PMID: 23073834.

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