

Catalog # 10-4860 Necrosulfonamide CAS# 1360614-48-7

(2E)-N-[4-[[(3-Methoxy-2-pyrazinyl)amino]sulfonyl]phenyl]-3-(5-nitro-2-thienyl)-2-propenamide Lot # FBS2172

Specifically blocks necroptosis downstream of RIP3 activation by preventing MLKL-RIP3 interaction. Displays neuroprotective effects after ischemic brain injury. Prevents cystine-starvation-induced necroptosis and ferroptosis in human triple negative breast cancer cells. Binds to gasdermin D inhibiting pyroptosis and associated inflammatory cell death and sepsis. Rescues cells from TLR3 ligand-induced death.

- 1) Sun et al. (2012) Mixed lineage kinase domain-like protein mediates necrosis signaling downstream of RIP3 kinase; Cell **148** 213
- 2) Zhou et al. (2017) The degradation of mixed linage kinase domain-like protein promotes neuroprotection after ischemic brain injury; Oncotarget, **8** 68393
- 3) Chen et al. (2017) CHAC1 degradation of glutathione enhances cysteine-starvation-induced necroptosis and ferroptosis in human triple negative breast cancer cells via the GCN2-eIF2α-ATF4 pathway-; Oncotarget, 8 114588
- 4) Rathkey et al. (2018) Chemical disruption of the pyroptotic pore-forming protein gasdermin D inhibits inflammatory cell death and sepsis; Sci Immunol., 3 eaat2738
- 5) Cuchet-Lourenco et al. (2018) Biallelic RIPK1 mutations in humans cause severe immunodeficiency, arthritis, and intestinal inflammation; Science, **361** 810

PHYSICAL DATA

Molecular Weight: 461.47

Molecular Formula: $C_{18}H_{15}N_5O_6S_2$ Purity: 98% by HPLC NMR: (Conforms)

Solubility: DMSO (10 mg/ml)

Physical Description: Yellow 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 1 month.

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