Necrosulfonamide-d_4

Cat. No.: HY-100573S

CAS No.: 1795144-22-7

Molecular Formula: $C_{18}H_{11}D_4N_5O_6S_2$

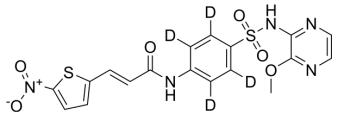
Molecular Weight: 465.5

Target: Mixed Lineage Kinase

Pathway: MAPK/ERK Pathway

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (214.82 mM; Need ultrasonic)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	2.1482 mL	10.7411 mL	21.4823 mL
5 mM	0.4296 mL	2.1482 mL	4.2965 mL
10 mM	0.2148 mL	1.0741 mL	2.1482 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Necrosulfonamide-d_4 is the deuterium labeled Necrosulfonamide. Necrosulfonamide is a necroptosis inhibitor acting by selectively targeting the mixed lineage kinase domain-like protein (MLKL). Necrosulfonamide prevents MLKL-RIP1-RIP3 necrosome complex from interacting with its downstream effectors. MLKL is a critical substrate of RIP3 during the induction of necrosis[1].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Sun L, et al. Mixed lineage kinase domain-like protein mediates necrosis signaling downstream of RIP3 kinase. Cell. 2012;148(1-2):213-227.

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