Dapansutrile

Cat. No.: HY-17629

CAS No.: 54863-37-5

Molecular Formula: $C_4H_7NO_2S$

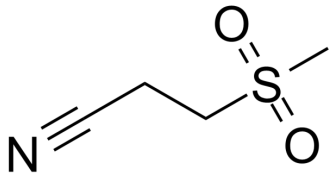
Molecular Weight: 133.17

Target: NOD-like Receptor (NLR)

Pathway: Immunology/Inflammation

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 : ≥ 125 mg/mL (938.65 mM)

H_2O : 36.67 mg/mL (275.36 mM; Need ultrasonic)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	7.5092 mL	37.5460 mL	75.0920 mL
	5 mM	1.5018 mL	7.5092 mL	15.0184 mL
	10 mM	0.7509 mL	3.7546 mL	7.5092 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 120 mg/mL (901.10 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (15.62 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (15.62 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (15.62 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Dapansutrile is a potent, selective and orally active inhibitor of NLRP3 inflammasome. Anti-inflammatory, analgesic activity [1].

IC_{50} & Target	NLRP3 inflammasome[1]

REFERENCES

[1]. Toldo S, et al. The NLRP3 Inflammasome Inhibitor, Dapansutrile, Reduces Infarct Size and Preserves Contractile Function After Ischemia Reperfusion Injury in the Mouse. J Cardiovasc Pharmacol. 2019 Apr;73(4):215-222.

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