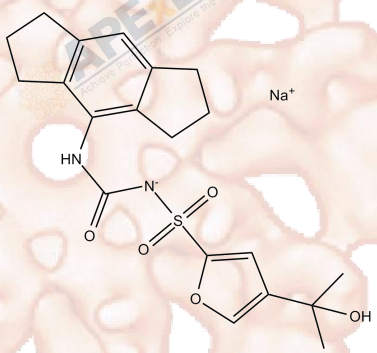
Product Data Sheet

MCC950 sodium

Cat. No.: B7946
CAS No.: 256373-96-3
Formula: C20H23N2NaO5S
M.Wt: 426.46
Synonyms: CRID3 sodium salt
Target:
Pathway:
Storage: Store at -20° C



Solvent & Solubility

In Vitro

⩾124 mg/mL in H2O; ⩾21.45 mg/mL in DMSO; ⩾43 mg/mL in EtOH

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.3449 mL	11.7244 mL	23.4489 mL
5 mM	0.4690 mL	2.3449 mL	4.6898 mL
10 mM	0.2345 mL	1.1724 mL	2.3449 mL

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

Biological Activity

Shortsummary	PotePotent NLRP3 inflammasome inhibitornt NLRP3 inflammasome inhibitor
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Bone marrow derived macrophages (BMDMs), human monocyte - derived macrophages (HMDMs), and human peripheral blood mononuclear cells (PBMCs)
Preparation method:	
Reacting conditions:	0.001 ~ 10 μM MCC950 sodium for 30 min incubation

	Applications:	Treating cells with nanomolar concentrations of MCC950 sodium dose-dependently inhibited the release of interleukin-1β (IL-1β) in BMDMs, HMDMs, and PBMCs. LPS-dependent tumor necrosis factor-α (TNF-α) secretion was not impaired by MCC950 sodium, which demonstrated that the inhibition effect of MCC950 sodium on IL-1β secretion was specific.
In Vivo	**Animal experiment**	
	Animal models:	C57BL/6 mice
	Dosage form:	10 and 50 mg/kg Injected intraperitoneally (i.p.)
	Applications:	In mice intraperitoneally injected with lipopolysaccharides (LPS), pre-treatment with MCC950 sodium (50 mg/kg, i.p., 1 h before LPS injection) reduced serum concentrations of IL-1β and IL-6 while it did not considerably decrease the amount of TNF-α. Furthermore, MCC950 sodium (10 mg/kg, i.p.) attenuated the severity of experimental autoimmune encephalomyelitis, a disease model of multiple sclerosis.
	Other notes:	The technical data provided above is for reference only.

Product Citations

1. Yejing Zhu, Jinyu Chi, et al. "High-dose remifentanil exacerbates myocardial ischemia-reperfusion injury through activation of calcium-sensing receptor-mediated pyroptosis." Int J Med Sci. 2023 Sep 18;20(12):1570-1583. PMID: 37859698
2. Jiaxin He, Jialin Cui, et al. "Astragaloside IV Attenuates High-Glucose-Induced Impairment in Diabetic Nephropathy by Increasing Klotho Expression via the NF-κB/NLRP3 Axis." J Diabetes Res. 2023 May 22:2023:7423661. PMID: 37261217

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References

1. Coll RC, Robertson AA, Chae JJ. A small-molecule inhibitor of the NLRP3 inflammasome for the treatment of inflammatory diseases. Nature Medicine, 2015, 21(3): 248-255.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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