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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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CPYPP

Cat. No.: HY-110100

CAS No.: 310460-39-0

Molecular Formula: $C_{18}H_{13}ClN_2O_2$

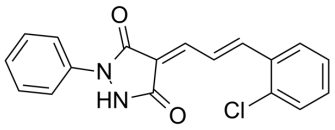
Molecular Weight: 324.76

Target: Others

Pathway: Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (76.98 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.0792 mL	15.3960 mL	30.7920 mL
5 mM	0.6158 mL	3.0792 mL	6.1584 mL
10 mM	0.3079 mL	1.5396 mL	3.0792 mL

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

In Vivo

1. Add each solvent one by one: 50% PEG300 >> 50% saline
   Solubility: 25 mg/mL (76.98 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.70 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.70 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CPYPP is a DOCK2-Rac1 interaction inhibitor. CPYPP binds to DOCK2 DHR-2 domain and inhibits the guanine nucleotide exchange factor (GEF) activity of $DOCK2^{DHR-2}$ for Rac1 in a dose-dependent manner with an IC_{50} of 22.8 μM. CPYPP also inhibits DOCK180 and DOCK5 and less inhibits DOCK9[1].

IC_{50} & Target

IC50: 22.8 μM (GEF activity of $DOCK2^{DHR-2}$ for Rac1)

In Vitro

CPYPP binds to DOCK2 DHR-2 domain in a reversible manner and inhibited its catalytic activity in vitro. When lymphocytes

	are treated with CPYPP, both chemokine receptor- and antigen receptor-mediated Rac activation are blocked, resulting in marked reduction of chemotactic response and T cell activation[1]. Although overexpression of DOCK2 induces Rac activation in HEK293T cells, this activation is markedly suppressed by treating the cells with CPYPP at 100 μM for 1 hr before assay[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	When 2.5 mg/kg of CPYPP is administrated intravenously, the plasma concentration of CPYPP is only 2.4 μM at 30 min. However, by intraperitoneally injecting 250 mg/kg of CPYPP into mice, the plasma concentration of CPYPP reached to 11.3 μM at 30 min and 10.9 μM at 1 hr, respectively[1]. The adoptively transferred spleen cells from mice that has been made by a ‘‘knock-in’’ strategy to express endogenous DOCK2 as a fusion protein with green fluorescent protein (GFP). Intraperitoneal injection of CPYPP (5 mg per mouse) 1 hr before adoptive transfer reduces the percentage of the migrated T cells to <25% of the control level[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Biochem Pharmacol. 2021 Feb;184:114399.
- Mol Immunol. 2022 Feb 4;143:135-146.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Nishikimi A, et al. Blockade of inflammatory responses by a small-molecule inhibitor of the Rac activator DOCK2. Chem Biol. 2012 Apr 20;19(4):488-97.

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