

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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#### Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

### Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Inhibitors

#### **TBOPP**

Cat. No.: HY-124711 CAS No.: 1996629-79-8 Molecular Formula:  $C_{24}H_{21}F_3N_2O_4S$ 

Molecular Weight: 490.49 Target: Others Pathway: Others

Storage: Powder -20°C

3 years 2 years

In solvent -80°C 2 years

> -20°C 1 year

**Product** Data Sheet

#### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 100 mg/mL (203.88 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.0388 mL	10.1939 mL	20.3878 mL
	5 mM	0.4078 mL	2.0388 mL	4.0776 mL
	10 mM	0.2039 mL	1.0194 mL	2.0388 mL

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

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (4.24 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.24 mM); Clear solution

#### **BIOLOGICAL ACTIVITY**

Description	TBOPP is a selective inhibitor of DOCK1 with an IC <sub>50</sub> of 8.4 $\mu$ M. TBOPP binds to the DOCK1 DHR-2 domain with high affinity (K d of 7.1 $\mu$ M), has anti-tumor activity for broader types of tumors <sup>[1]</sup> .
IC <sub>50</sub> & Target	IC50: 8.4 $\mu$ M (DOCK1); Kd: 7.1 $\mu$ M (DOCK1 DHR-2 domain) $^{[1]}$
In Vitro	TBOPP (12.5 µM; 3 days; 3LL cells) treatment inhibits DOCK1-mediated invasion, macropinocytosis, and survival under the condition of glutamine deprivation without impairing the biological functions of the closely related DOCK2 and DOCK5 proteins <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.  Cell Viability Assay <sup>[1]</sup>

Cell Line:	3LL cells
Concentration:	12.5 μΜ
Incubation Time:	3 days
Result:	Inhibited cell viability.

#### In Vivo

TBOPP (0.67 mg per mouse; administrated on days 0, 1, 3, and 5; for 2 weeks; C57BL/6 mice) treatment effectively suppresses metastasis of cancer cells in vivo and the number of lymphocytes in the spleen is not changed, the body weight is also unchanged between TBOPP-treated and non-treated mice $^{[1]}$ .

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

Animal Model:	C57BL/6 mice (6- to 8-week-old) with ex-3LL cells <sup>[1]</sup>	
Dosage:	0.67 mg per mouse	
Administration:	Administrated on days 0, 1, 3, and 5; for 2 weeks	
Result:	The lung metastasis was significantly suppressed.	

#### **REFERENCES**

[1]. Tajiri H, et al. Targeting Ras-Driven Cancer Cell Survival and Invasion through Selective Inhibition of DOCK1. Cell Rep. 2017 May 2;19(5):969-980.

Caution: Product has not been fully validated for medical applications. For research use only.

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