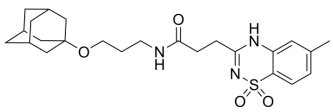
BTD

Cat. No.:	HY-128205
CAS No.:	896684-04-1
Molecular Formula:	$C_{24}H_{33}N_3O_4S$
Molecular Weight:	459.6
Target:	TRP Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
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 (217.58 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1758 mL	10.8790 mL	21.7581 mL
	5 mM	0.4352 mL	2.1758 mL	4.3516 mL
	10 mM	0.2176 mL	1.0879 mL	2.1758 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.44 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.44 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BTD is a selective transient receptor potential canonical 5 (TRPC5) activator. BTD can be used for the research of neurological disease[1].

IC_{50} & Target

EC50:1.4 μM (fluorometric microwell Ca^{2+} influx analyses); 1.3 μM (in whole cell patch clamp experiments); 20.6 μM (TRPM8-expressing HEK293 cells)[1].

In Vitro

BTD can activate TRPC5 with an EC_{50} values of 1.4 μM (fluorometric microwell Ca^{2+} influx analyses) and 1.3 μM (in whole cell patch clamp experiments), respectively[1].
BTD can activate TRPM8-expressing HEK293 cells with an EC_{50} values of 20.6 μM[1].
BTD can activate heteromeric channel complexes consisting of TRPC5 and its closest relatives TRPC1 or TRPC4[1]

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

REFERENCES

[1]. Beckmann H,et al. A benzothiadiazine derivative and methylprednisolone are novel and selective activators of transient receptor potential canonical 5 (TRPC5) channels. Cell Calcium. 2017;66:10-18.

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