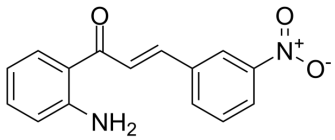
TMBIM6 antagonist-1

Cat. No.:	HY-137175
CAS No.:	123134-61-2
Molecular Formula:	$C_{15}H_{12}N_2O_3$
Molecular Weight:	268.27
Target:	mTOR
Pathway:	PI3K/Akt/mTOR
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 : 50 mg/mL (186.38 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.7276 mL	18.6379 mL	37.2759 mL
	5 mM	0.7455 mL	3.7276 mL	7.4552 mL
	10 mM	0.3728 mL	1.8638 mL	3.7276 mL

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

BIOLOGICAL ACTIVITY

Description

TMBIM6 antagonist-1, a potential TMBIM6 antagonist, prevents TMBIM6 binding to mTORC2, decreases mTORC2 activity, and also regulates TMBIM6-leaky Ca^{2+}[1].

In Vitro

TMBIM6 antagonist-1 (BIA, 0.5-10 μM, 3 days) significantly and dose-dependently inhibits cell viability in HT1080, MCF7, MDA-MB-2341 and SKBR3 cells, with IC_{50} values of 1.7 ± 0.1 μM for HT1080, 2.6 ± 0.4 μM for MCF cells, 2.6 ± 0.5 μM for MDA-MB-231 cells, and 2.4 ± 0.4 μM for SKBR3 cells, respectively[1].

TMBIM6 antagonist-1 (BIA, 10 μM) treatment decreases cell migration in HT1080, MCF7, MDA-MB-231, and SKBR3 cells, not TMBIM6 KO HT1080 cells[1].

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

Cell Viability Assay[1]

Cell Line:	HT1080, MCF7, MDA-MB-2341 and SKBR3 cells.
Concentration:	0.5-10 μM.

Incubation Time:	3 days.
Result:	Inhibited cell viability.

Western Blot Analysis[1]

Cell Line:	WT and TMBIM6 KO HT1080 cells.
Concentration:	0, 2, 5 μM.
Incubation Time:	
Result:	Downregulated the protein levels of AKT-pS473.

In Vivo

TMBIM6 antagonist-1 (1 mg/kg, IP 5 days per week during 25 days) significantly impaires cell-driven tumor growth[1].

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

Animal Model:	Six- to eight-week BklNbt:BALB/c/nu/nu old mice (HT1080 and MDA-MB-231 cells)[1].
Dosage:	1 mg/kg.
Administration:	IP 5 days per week during 25 days.
Result:	Impaired cell-driven tumor growth.

REFERENCES

[1]. Hyun-Kyoung Kim, et al. TMBIM6/BI-1 contributes to cancer progression through assembly with mTORC2 and AKT activation. Nat Commun. 2020 Aug 11;11(1):4012.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA