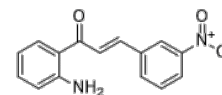


Product Name : TMBIM6 antagonist BIA
Cat. No. : PC-28256
CAS No. : 123134-61-2
Molecular Formula : C₁₅H₁₂N₂O₃
Molecular Weight : 268.27
Target : mTOR
Solubility : 10 mM in DMSO



Biological Activity

TMBIM6 antagonist BIA (Bax inhibitor-1 antagonist, TMBIM6 antagonist-1) is a specific small molecule **TMBIM6 (Bax inhibitor-1, BI-1)** antagonist, prevents TMBIM6 binding to **mTORC2**, decreases mTORC2 activity, also regulates TMBIM6-leaky Ca²⁺.

BIA inhibits proliferation and cell viability of MCF7 and MDA-MB-231 cells highly expressed TMBIM6 with IC₅₀ of 1.7-2.6 uM.

BIA reduces cell proliferation by inducing the dissociation of TMBIM6 from mTORC2 and ribosome, result in cell death.

BIA suppresses ER release of Ca²⁺ from TMBIM6. decreased cell migration in HT1080, MCF7, MDA-MB-231, and SKBR3 cells, but not TMBIM6 KO HT1080 cells.

BIA (1 mg/kg, vehicle 0.1% DMSO with saline) markedly impaired cell-driven tumor growth of injected HT1080 and MDA-MB-231 cells into immunocompromised mice.

BIA significantly attenuated inflammatory cell infiltration, goblet cell hyperplasia, airway remodelling and Th2-associated cytokine expression in the lungs of A. fumigatus-challenged mice.

Transmembrane B cell lymphoma 2-associated X protein (BAX) inhibitor motif-containing (TMBIM)6, an inhibitor of ER stress.

TMBIM6 is a Ca²⁺ channel-like protein that lowers the steady-state [Ca²⁺]_{ER}, which is expressed in the endoplasmic reticulum (ER) membrane surface.

TMBIM6 is overexpressed in many cancer types.

References

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

Yu YJ, et al. **Br J Pharmacol.** 2026 Oct;183(19):5975-5991.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

E-mail: tech@probechem.com