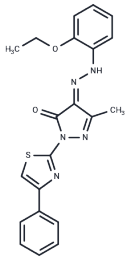
Data Sheet (Cat.No.T2453)

TargetMol

BAM7

Chemical Properties



CAS No. : 331244-89-4

Formula: C21H19N5O2S

Molecular Weight: 405.47

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	BAM 7 is a direct and specific activator of proapoptotic Bax (EC50: 3.3 μM).
Targets(IC50)	Bcl-2 Family
In vivo	In vitro experiments show that BAM7 induces BAX-mediated pore formation, BAX oligomerization, and BAX-dependent cell death. By activating BAX within cells, BAM7 selectively triggers BAX-mediated apoptosis. Its efficacy is limited to cells containing BAX, where it induces the biochemical and morphological hallmarks of BAX-mediated apoptosis. BAM7 binds directly to the N-terminal BH3 domain of BAX, facilitating interaction at the surface and BAX activation via the BIM BH3 helix. Moreover, BAM7 dose-dependently and temporally triggers the conversion of BAX from monomers to oligomers.
Kinase Assay	Fluorescence polarization binding assays: Direct binding curves are first generated by incubating FITC-BIM SAHB (50 nM) with serial dilutions of fulllength BAX, BCL-XLΔC, MCL-1ΔNΔC, BFL-1/A1ΔC or BAKΔC and fluorescence polarization measured at 20 minutes on a SpectraMax M5 microplate reader. For competition assays, a serial dilution of small molecule or acetylated BIM SAHB (Ac-BIM SAHB) is combined with FITC-BIM SAHB (50 nM), followed by the addition of recombinant protein at ~EC75 concentration, as determined by the direct binding assay (BAX, BAKΔC: 500 nM; BCL-XLΔC, MCL-1ΔNΔC, BFL-1/A1ΔC: 200 nM). Fluorescence polarization is measured at 20 minutes and IC50 values calculated by nonlinear regression analysis of competitive binding curves using Prism software.
Cell Research	MEFs (2.5 × 103 cells per well) are seeded in 96-well opaque plates for 18-24 h and then incubated with serial dilutions of BAM7, ANA-BAM16 or vehicle (0.15% (v/v) DMSO) in DMEM at 37 °C in a final volume of 100 μL. Cell viability is assayed at 24 h by addition of CellTiter-Glo reagent according to the manufacturer's protocol, and luminescence is measured using a SpectraMax M5 microplate reader. Viability assays are performed in at least triplicate, and the data are normalized to vehicle-treated control wells.(Only for Reference)

Solubility Information

Solubility	DMSO: 4.1 mg/mL (10.11 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4663 mL	12.3314 mL	24.6627 mL
5 mM	0.4933 mL	2.4663 mL	4.9325 mL
10 mM	0.2466 mL	1.2331 mL	2.4663 mL
50 mM	0.0493 mL	0.2466 mL	0.4933 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Gavathiotis E, et al. Nat Chem Biol, 2012, 8(7), 639-645.