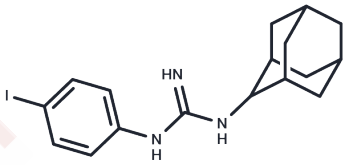
Data Sheet (Cat.No.T22870)

TargetMol

IPAG

Chemical Properties



CAS No. : 193527-91-2

Formula: C17H22IN3

Molecular Weight: 395.28

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	IPAG is a potent σ-receptor antagonist (pKi=4.3). IPAG can induce cell apoptosis.
Targets(IC50)	Opioid Receptor,Sigma receptor
In vitro	IPAG treatment produces a mean of 100±8 μg per 106 cells. IPAG can inhibit cell proliferation. Treatment with IPAG decreases cell mass. IPAG treatment suppresses phosphorylation of translational regulator proteins p70S6K, S6, and 4E-BP1[2]. Sigma1 inhibition by IPAG causes the autolysosomal degradation of PD-L1 in PC3 (hormone-insensitive prostate cancer) and MDA-MB-231 (triple-negative breast cancer) cell lines and reduces the levels of functional PD-L1 on the surface of the cells[3].

Solubility Information

Solubility	DMSO: 7.5 mg/mL (18.97 mM),when pH is adjusted to 3 with 1 M HCl. Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5299 mL	12.6493 mL	25.2985 mL
5 mM	0.506 mL	2.5299 mL	5.0597 mL
10 mM	0.253 mL	1.2649 mL	2.5299 mL
50 mM	0.0506 mL	0.253 mL	0.506 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

James M Brimson, et al. Simple ammonium salts acting on sigma-1 receptors yield potential treatments for cancer and depression. Sci Rep. 2020 Jun 8;10(1):9251.
Felix J Kim, et al. Inhibition of tumor cell growth by Sigma1 ligand mediated translational repression. Biochem Biophys Res Commun. 2012 Sep 21;426(2):177-82.
Halley M Oyer, et al.Small-Molecule Modulators of Sigma1 and Sigma2/TMEM97 in the Context of Cancer: Foundational Concepts and Emerging Themes. Front Pharmacol. 2019 Oct 21;10:1141.

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