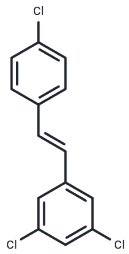
Data Sheet (Cat.No.T4608)

PDM2

Chemical Properties



CAS No. : 688348-25-6

Formula: C14H9Cl3

Molecular Weight: 283.58

Appearance: no data available

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

Biological Description

Description	PDM 2 is a potent and selective aryl hydrocarbon receptor (AhR) antagonist.
Targets(IC50)	AhR,Aryl Hydrocarbon Receptor
In vitro	In a previous screening study, it was found that the replacement of resveratrol hydroxyls by the same substituent produced compounds with the following order of affinity: OH (resveratrol) , OMe < F < CF3 < Cl (PDM2). PDM2 exhibited a Ki of 1.25 for AhR and no affinity for ER, indicating that replacement of hydroxyl with chloride could abolish binding on ER and dramatically increase the affinity for AhR. Moreover, among its analogs PDM2 was the most potent AhR antagonists in this series, being 10-fold more efficient than resveratrol. PDM2, devoid of measurable affinity for ER, did not display any effect on ER-driven transcription. Therefore, PDM2 was considered as a selective AhR modulator with regard to ER. In addition, its trimethoxylated derivatives and 3,5-methoxy derivatives were able to induce cytotoxicity at doses lower than 100 nM, which was consistent with previous data. 3,5-Methoxy derivatives, however, only showed cytotoxicity at concentrations higher than 10 μM [1].

Solubility Information

Solubility	DMSO: 50 mg/mL (176.32 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5263 mL	17.6317 mL	35.2634 mL
5 mM	0.7053 mL	3.5263 mL	7.0527 mL
10 mM	0.3526 mL	1.7632 mL	3.5263 mL
50 mM	0.0705 mL	0.3526 mL	0.7053 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

de Medina, P. ,Casper, R.,Savouret, J.F., et al. Synthesis and biological properties of new stilbene derivatives of resveratrol as new selective aryl hydrocarbon modulators. Journal of Medicinal Chemistry 48, 287-291 (2005).