Product Data Sheet

Product Name: PDM 11
Cat. No.: GC15761

Chemical Properties

Cas. No.	1032508-03-4		
Chemical Name	(E)-5-[2-(4-chlorophenyl)ethenyl]-1,3-dimethoxyphenyl		
SMILES	ClC(C=C1)=CC=C1/C=C/C2=CC(OC)=CC(OC)=C2		
Formula	$C_{16}H_{15}ClO_2$	M.Wt	274.7
Solubility	≤2mg/ml in ethanol;20mg/ml in DMSO;30mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	PDM 11		

Background

PDM 11 is a potent and selective aryl hydrocarbon receptor (AhR) antagonist.

Aryl hydrocarbon receptor (AhR), a ligand-dependent intracellular transcription factor, has ligands including the most infamous xenobiotics, such as benzo[a]pyrene, dioxin, and plenty of polyaromatics.

In vitro: In a previous study, PDM 11 was found to be structurally very similar to several resveratrol analogs which acted as a potent and selective AhR antagonists and agonists. One of these compounds with fluorine in place of the 4'-chlorine of PDM11 was shown to act as a AhR antagonist with a Ki of about 3 nM. This fluorine-containing compound was found to be inactive as a ligand for the estrogen receptor at even up to 100 μM. Therefore, since AhR knockout mice have been reported to be insensitive to the carcinogenic effects of classical AhR ligands, antagonists of AhR might potentially serve as therapeutic agents for the treatment for dioxin and other aryl hydrocarbon poisonings

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[1].

In vivo: Up to now, there is no animal in vivo data reported.

Clinical trial: So far, no clinical study has been conducted.

Reference:
[1] 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).

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