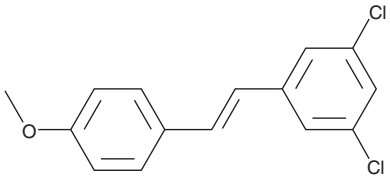
PRODUCT INFORMATION

CAY10464

Item No. 10006545

CAS Registry No.:	688348-37-0
Formal Name:	1,3-dichloro-5-[(1E)-2-(4-methoxyphenyl)ethenyl]-benzene
MF:	$C_{15}H_{12}Cl_2O$
FW:	279.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 212, 326 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CAY10464 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10464 in the solvent of choice, which should be purged with an inert gas. CAY10464 is soluble in ethanol, DMSO and dimethyl formamide (DMF). The solubility of CAY10464 is approximately 10 mg/ml in ethanol and approximately 30 mg/ml in DMSO and DMF.

CAY10464 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10464 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10464 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The aryl hydrocarbon receptor (AhR) is a ligand-dependent intracellular transcription factor whose ligands include some of the most infamous xenobiotics, including dioxin (TCDD, 2,3,7,8-tetrachlorodibenzoparadioxin), benzo[a]pyrene, and numerous polyaromatic hydrocarbons from soot particles and coal tar.[1] CAY10464 is a potent and selective AhR antagonist, with a K_i of 1.4 nM when tested in rabbit liver cytosol preparations.[2] It is inactive as an estrogen receptor ligand even at 100 µM.

References

1. Denison, M.S. and Nagy, S.R. Activation of the aryl hydrocarbon receptor by structurally diverse exogenous and endogenous chemicals. *Annu. Rev. Pharmacol. Toxicol.* **43**, 309-334 (2003).
2. 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. *J. Med. Chem.* **48**, 287-291 (2005).

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