

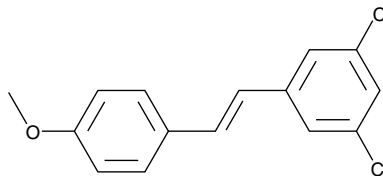
# Product Information



**CAY10464**

Item No. 10006545

**CAS Registry No.:** 688348-37-0  
**Formal Name:** 1,3-dichloro-5-[(1E)-2-(4-methoxyphenyl)ethenyl]-benzene  
**MF:** C<sub>15</sub>H<sub>12</sub>Cl<sub>2</sub>O  
**FW:** 279.2  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 212, 326 nm



## Laboratory Procedures

For long term storage, we suggest that CAY10464 be stored as supplied at -20°C. It should be stable for at least one year.

CAY10464 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10464 in an organic solvent purged with an inert gas. CAY10464 is soluble in organic solvents such as 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.

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.<sup>1</sup> CAY10464 is a potent and selective AhR antagonist, with a K<sub>i</sub> of 1.4 nM when tested in rabbit liver cytosol preparations.<sup>2</sup> 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).

## Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/10006545](http://www.caymanchem.com/catalog/10006545)

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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