

# PRODUCT INFORMATION



**CAY10641**

Item No. 10662

**CAS Registry No.:** 1233706-89-2  
**Formal Name:** 1-[2-hydroxy-3-(4-phenoxyphenoxy)propyl]-3-(2-methyl-1-oxopropyl)-1H-indole-5-carboxylic acid

**MF:** C<sub>28</sub>H<sub>27</sub>NO<sub>6</sub>

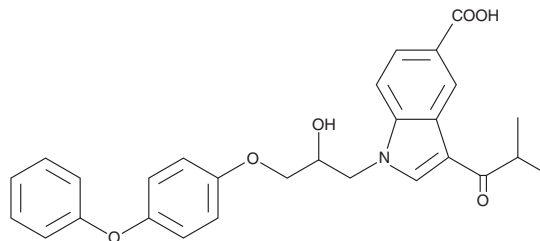
**FW:** 473.5

**Purity:** ≥98%

**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

CAY10641 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10641 in the solvent of choice. CAY10641 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of CAY10641 in ethanol is approximately 3 mg/ml and approximately 10 mg/ml in DMSO and DMF.

CAY10641 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10641 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. CAY10641 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Cytosolic phospholipase A<sub>2α</sub> (cPLA<sub>2α</sub>) specifically catalyzes the hydrolysis of arachidonic acid from the *sn*-2-ester position of membrane phospholipids, playing a central role in initiating the synthesis of prostaglandins and leukotrienes, both important mediators of the inflammatory process.<sup>1</sup> CAY10641 is an inactive alcohol derivative of a highly potent (IC<sub>50</sub> = 12 nM) cPLA<sub>2α</sub> inhibitor. The parent compound demonstrates strong anti-inflammatory effects when applied topically at a dose of 0.1 mg/ear in a mouse model of acute irritant contact dermatitis. CAY10641 is rapidly cleared from the blood stream (only 0.5 μg/ml remains 30 minutes after 10 mg/kg intravenous administration to mice).<sup>2</sup> However, no other biological effects have been reported.

## References

- Schaloske, R.H. and Dennis, E.A. The phospholipase A<sub>2</sub> superfamily and its group numbering system. *Biochem. Biophys. Acta* **1761**, 1246-1259 (2006).
- Drews, A., Bovens, S., Roebrock, K., et al. 1-(5-carboxyindol-1-yl)propan-2-one inhibitors of human cytosolic phospholipase A<sub>2α</sub> with reduced lipophilicity: Synthesis, biological activity, metabolic stability, solubility, bioavailability, and topical *in vivo* activity. *J. Med. Chem.* **53**, 5165-5178 (2010).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

### WARRANTY AND LIMITATION OF REMEDY

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