

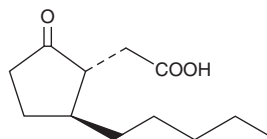
# PRODUCT INFORMATION



**CAY10696**

Item No. 9002313

**Formal Name:** 2-((1R,5S)-2-oxo-5-pentylcyclopentyl)acetic acid  
**MF:** C<sub>12</sub>H<sub>20</sub>O<sub>3</sub>  
**FW:** 212.3  
**Purity:** ≥95%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A solution in ethanol



## Laboratory Procedures

For long term storage, we suggest that CAY10696 be stored as supplied at -20°C. It should be stable for at least two years.

CAY10696 is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of CAY10696 in these solvents is approximately 100, 10, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of CAY10696 is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of CAY10696 in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

## Description

Phytoenoic and phytodienoic acids are cyclopentenone oxylipins biosynthesized in plants from linoleic acid (Item No. 90150).<sup>1-3</sup> Cyclopentenones are converted to cyclopentanones by reductases, as occurs in the jasmonic acid pathway.<sup>2</sup> CAY10696 is a 12-carbon cyclopentanone that is structurally related to a variety of plant oxylipins. Its physiological actions are not known.

## References

1. Ogorodnikova, A.V., Gorina, S.S., Mukhtarova, L.S., *et al.* Stereospecific biosynthesis of (9S,13S)-10-oxo-phytoenoic acid in young maize roots. *Biochim. Biophys. Acta* (2015).
2. Schaller, A. and Stintzi, A. Enzymes in jasmonate biosynthesis - Structure, function, regulation. *Phytochem.* **70**, 1532-1538 (2009).
3. Grechkin, A.N., Mukhtarova, L.S., Latypova, L.R., *et al.* Tomato CYP74C3 is a multifunctional enzyme not only synthesizing allene oxide but also catalyzing its hydrolysis and cyclization. *ChemBioChem* **9**, 2498-2505 (2008).

### 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.

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## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM