

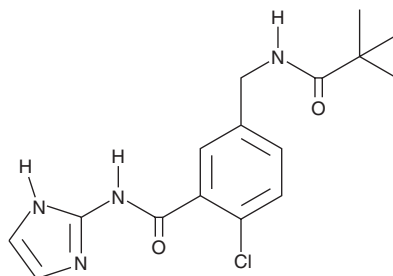
# PRODUCT INFORMATION



## CAY10700

Item No. 18905

**CAS Registry No.:** 1381846-21-4  
**Formal Name:** 2-chloro-5-[[[(2,2-dimethyl-1-oxopropyl)amino]methyl]-N-1H-imidazol-2-yl]-benzamide  
**MF:** C<sub>16</sub>H<sub>19</sub>ClN<sub>4</sub>O<sub>2</sub>  
**FW:** 334.8  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 265 nm



### Laboratory Procedures

For long term storage, we suggest that CAY10700 be stored as supplied at -20°C. It should be stable for at least two years.

CAY10700 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10700 in the solvent of choice. CAY10700 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of CAY10700 in these solvents is approximately 2 mg/ml.

CAY10700 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10700 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10700 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

Prostaglandin E<sub>2</sub> (PGE<sub>2</sub>; Item No. 14010) is the major PG synthesized at sites of inflammation and plays an important role in different inflammatory diseases. It acts as a mediator of pain and inflammation and promotes bone destruction. The increased synthesis of PGE<sub>2</sub> during inflammation can be accounted for by increased expression of both COX-2 and microsomal PGE synthase-1 (mPGES-1). CAY10700 is an orally bioavailable inhibitor of mPGES-1 (IC<sub>50</sub> = 0.24 μM in an *in vitro* human whole blood assay).<sup>1</sup> It is inactive against COX-1 and COX-2 (9% inhibition at 100 μM and 16% at 30 μM, respectively).<sup>1</sup>

### Reference

1. Schiffler, M.A., Antonysamy, S., Bhattachar, S.N., *et al.* Discovery and characterization of 2-acylaminoimidazole microsomal prostaglandin E synthase-1 inhibitors. *J. Med. Chem.* **59**(1), 194-205 (2016).

#### 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