

# 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

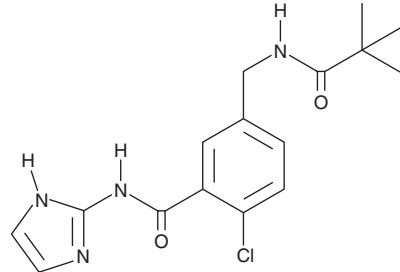
Purity: ≥98%

UV/Vis.: λ<sub>max</sub>: 265 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

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

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/06/2025

### 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