

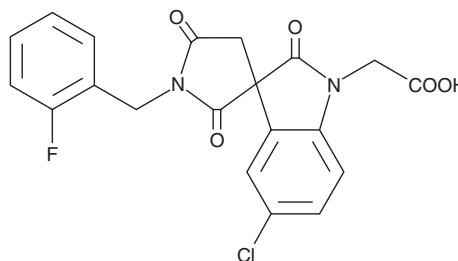
Product Information



CAY10597

Item No. 10012539

CAS Registry No.: 916046-55-4
Formal Name: 5-chloro-1'-[(2-fluorophenyl)methyl]-2,2',5'-trioxo-spiro[3H-indole-3,3'-pyrrolidine-1(2H)-acetic acid
MF: C₂₀H₁₄ClFN₂O₅
FW: 416.8
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that CAY10597 be stored as supplied at -20°C. It should be stable for at least two years.

CAY10597 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10597 in an organic solvent purged with an inert gas. CAY10597 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of CAY10597 in these solvents is approximately 20 mg/ml.

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. Organic solvent-free aqueous solutions of CAY10597 can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of CAY10597 in PBS, pH 7.2, is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

The biological effects of prostaglandin D₂ (PGD₂) are transduced by at least two 7-transmembrane G protein-coupled receptors, designated DP₁ and CRTH2/DP₂. In humans, CRTH2/DP₂ is expressed on Th2 cells, eosinophils, and basophils where it mediates the chemotactic activity of PGD₂.¹ CAY10597, as a racemic mixture, is a potent CRTH2/DP₂ receptor antagonist that binds to the human receptor with a K_i value of 37 nM.² The R enantiomer of CAY10597 is slightly more potent exhibiting K_i values of 23 and 22 nM at the human and murine CRTH2/DP₂ receptor, respectively. The R enantiomer of CAY10597 inhibits eosinophil chemotaxis induced by 13,14-dihydro-15-keto-PGD₂ with an IC₅₀ value of 40 nM.²

References

- Hirai, H., Tanaka, K., Yoshie, O., *et al.* Prostaglandin D₂ selectivity induces chemotaxis in T helper type 2 cells, eosinophils, and basophils *via* seven-transmembrane receptor CRTH2. *J. Exp. Med.* **193**(2), 255-261 (2001).
- Crosgnani, S., Page, P., Missotten, M., *et al.* Discovery of a new class of potent, selective, and orally bioavailable CRTH2 (DP₂) receptor antagonists for the treatment of allergic inflammatory diseases. *J. Med. Chem.* **51**, 2227-2243 (2008).

Related Products

15(R)-Prostaglandin D₂ - Item No. 10118 • BAY-u3405 - Item No. 10156 • 11-deoxy-11-methylene-15-keto Prostaglandin D₂ - Item No. 12415 • CAY10648 - Item No. 9000549 • CAY10471 - Item No. 10006735

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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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