Product Information



CAY10595

Item No. 10012553

CAS Registry No.: 916047-16-0

Formal Name: 5-chloro-1'-[5-chloro-2-fluorophenyl)

> methyl]-2,2',5'-trioxo-spiro[3H-indole-3,3'pyrrolidine]-1(2H)-acetic acid

MF: $C_{20}H_{13}Cl_2FN_2O_5$

FW: 451.2 **Purity:**

Stability: ≥2 years at -20°C Supplied as: A crystalline solid

Laboratory Procedures

For long term storage, we suggest that CAY10595 be stored as supplied at -20°C. It should be stable for at least two

CAY10595 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10595 in an organic solvent purged with an inert gas. CAY10595 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CAY10595 in these solvents is approximately 25 mg/ml.

CAY10595 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10595 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10595 has a solubility of approximately 0.5 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. 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. CAY10595, as a racemic mixture, is a potent CRTH2/ DP₂ receptor antagonist that binds to the human receptor with a K_i value of 10 nM.² The R-enantiomer of CAY10595 is significantly more potent, exhibiting K_i values of 5.3 and 5 nM at the human and murine CRTH2/DP₂ receptors, respectively. The R-enantiomer of CAY10595 inhibits eosinophil chemotaxis induced by 13,14-dihydro-15-keto-PGD₂ with an IC₅₀ value of 7.3 nM.²

References

- 1. 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).
- 2. Crosignani, 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 • CAY10597 - Item No. 10012539

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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Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within try (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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