

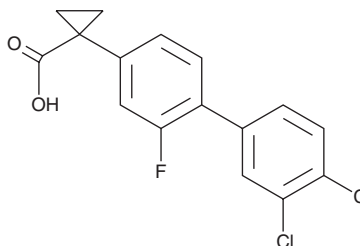
PRODUCT INFORMATION



CHF5074

Item No. 27917

CAS Registry No.: 749269-83-8
Formal Name: 1-(3',4'-dichloro-2-fluoro[1,1'-biphenyl]-4-yl)-cyclopropanecarboxylic acid
Synonyms: CS 1103, CSP1103, Itanapraced
MF: C₁₆H₁₁Cl₂FO₂
FW: 325.2
Purity: ≥95%
UV/Vis.: λ_{max}: 256 nm
Supplied as: A 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

CHF5074 is supplied as a solid. A stock solution may be made by dissolving the CHF5074 in the solvent of choice, which should be purged with an inert gas. CHF5074 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of CHF5074 in these solvents is approximately 10, 20, and 33 mg/ml, respectively.

Description

CHF5074 is a modulator of γ -secretase and a derivative of flurbiprofen (Item No. 70250).¹ It inhibits the secretion of amyloid β (1-42) (A β 42) in H4-APP695NL human neuroglioma cells that overexpress a mutated form of amyloid precursor protein (APP; IC₅₀ = 41 μ M) and selectively inhibits secretion of A β 42 over A β 40 with 79% and 14% inhibition, respectively, at 100 μ M. It does not inhibit COX-1 or COX-2 when used at concentrations up to 100 and 500 μ M, respectively, and does not induce Notch cleavage in HEK293 cells expressing the APP mutant APP_{swe} at 5 μ M.^{1,2} CHF5074 decreases plasma levels of A β 42 in the Tg2576 transgenic mouse model of Alzheimer's disease when administered at a dose of 12.5 mg/kg per day for seven days and reduces the plaque area and number of plaques in the brain of hAPP mice when administered in the diet at 375 ppm for six months.^{1,3} It decreases the distance traveled, but not the escape latency, in the Morris water maze in hAPP mice compared to hAPP animals administered a vehicle control.

References

1. Peretto, I., Radaelli, S., Parini, C., *et al.* Synthesis and biological activity of flurbiprofen analogues as selective inhibitors of β -amyloid1-42 secretion. *J. Med. Chem.* **48(18)**, 5705-5720 (2005).
2. Imbimbo, B.P., Del Giudice, E., Colavito, D., *et al.* 1-(3',4'-Dichloro-2-fluoro[1,1'-biphenyl]-4-yl)-cyclopropanecarboxylic acid (CHF5074), a novel γ -secretase modulator, reduces brain β -amyloid pathology in a transgenic mouse model of Alzheimer's disease without causing peripheral toxicity. *J. Pharmacol. Exp. Ther.* **323(3)**, 822-830 (2007).
3. Imbimbo, B.P., Hutter-Paier, B., Villetti, G., *et al.* CHF5074, a novel γ -secretase modulator, attenuates brain β -amyloid pathology and learning deficit in a mouse model of Alzheimer's disease. *Br. J. Pharmac.* **156(6)**, 982-993 (2009).

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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