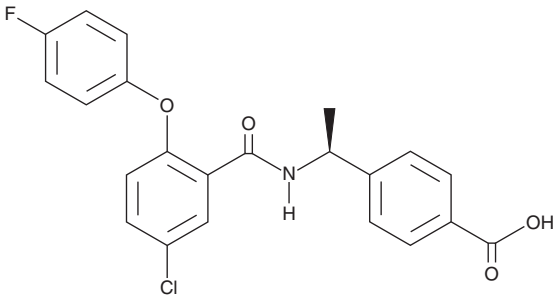
PRODUCT INFORMATION

CJ-42794

Item No. 10010428

CAS Registry No.:	847728-01-2
Formal Name:	4-[(1S)-1-[[5-chloro-2-(4-fluorophenoxy)benzoyl]amino] ethyl]-benzoic acid
Synonym:	RQ-00015986
MF:	$C_{22}H_{17}ClFNO_4$
FW:	413.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 234 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

CJ-42794 is supplied as a crystalline solid. A stock solution may be made by dissolving the CJ-42794 in the solvent of choice, which should be purged with an inert gas. CJ-42794 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CJ-42794 in ethanol and DMSO is approximately 25 mg/ml and approximately 30 mg/ml in DMF.

CJ-42794 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CJ-42794 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. CJ-42794 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Prostaglandin E_2 (PGE_2) activates four E prostanoid (EP) receptors, $EP_{1\text{-}4}$. EP_4 is a Gs protein-coupled receptor that, by elevating the second messenger cAMP, plays important roles in bone formation and resorption, cancer, and atherosclerosis.{16772,16773,16619} CJ-42794 is a selective antagonist of EP_4 (K_i = 3.16 nM) that less potently binds EP_2 (K_i = 631 nM) and has no affinity for EP_1 or EP_3.[4,5] It has minimal effect on numerous other receptors, enzymes, or channels.[5] Unlike general inhibitors of PGE_2 synthesis, CJ-42794 does not cause damage to rat gastrointestinal mucosa.[4] Instead, it delays the healing of gastric ulcers in mice and rats, suppressing the upregulation of VEGF expression and angiogenesis.[6] CJ-42794 blocks pain and inflammation in rat models of arthritis as well as gastric tumorigenesis in mice.[7,8]

References

1. Li, M., Thompson, D.D., and Paralkar, V.M. *Int. Orthop.* **31(6)**, 767-772 (2007).
2. Hawcroft, G., Ko, C.W.S., and Hull, M.A. *Oncogene* **26(21)**, 3006-3019 (2007).
3. Babaev, V.R., Chew, J.D., Ding, L., *et al. Cell Metab.* **8(6)**, 492-501 (2008).
4. Takeuchi, K., Tanaka, A., Kato, S., *et al. J. Pharmacol. Exp. Ther.* **322(3)**, 903-912 (2007).
5. Murase, A., Taniguchi, Y., Tonai-Kachi, H., *et al. Life Sci.* **82(3-4)**, 226-232 (2008).
6. Hatazawa, R., Tanaka, A., Tanigami, M., *et al. Am. J. Physiol. Gastrointest. Liver Physiol.* **293(4)**, G788-G797 (2007).
7. Hutamekalin, P., Takeda, K., Tani, M., *et al. J. Pharmacol. Sci.* **112(1)**, 56-63 (2010).
8. Oshima, H., Hioki, K., Popivanova, B.K., *et al. Gastroenterology* **140(2)**, 596-607 (2011).

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