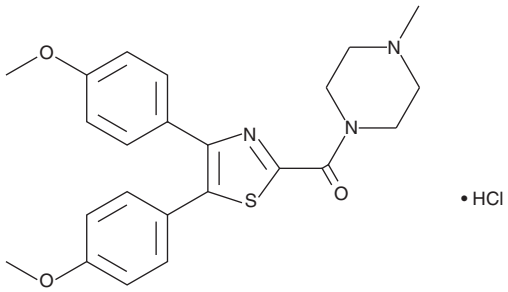
PRODUCT INFORMATION

FR122047 (hydrochloride)

Item No. 10039

CAS Registry No.:	130717-51-0
Formal Name:	1-[[4,5-*bis*(4-methoxyphenyl)-2-thiazolyl]carbonyl]-4-methyl-piperazine, monohydrochloride
MF:	$C_{23}H_{25}N_3O_3S$ • HCl
FW:	460.0
Purity:	≥98%
Supplied as:	A crystalline solid
UV/Vis.:	λ_{max}: 234, 270, 344 nm
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

FR122047 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the FR122047 (hydrochloride) in an organic solvent purged with an inert gas. FR122047 (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of FR122047 (hydrochloride) in these solvents is approximately 1 and 10 mg/ml, respectively.

FR122047 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, FR122047 (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. FR122047 (hydrochloride) has a solubility of approximately 100 µg/ml in a 1:10 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

FR122047 is a selective inhibitor of COX-1. The IC_{50} values for inhibiton of human COX-1 and COX-2 are 0.028 and 65 µM, respectively.[1] In human platelet-rich plasma, FR122047 inhibits arachidonic acid, collagen, and ADP-induced platelet aggregation with an IC_{50} of 180-200 nM, which is nearly 100 times more potent than aspirin.[2] Unlike aspirin, FR122047 does not induce gastric damage upon oral administration at doses (100 mg/kg) far in excess of the dose needed for complete suppression of platelet COX-1. In some models of inflammation, such as collagen-induced arthritis in the rat, FR122047 has an anti-inflammatory effect, implying a role for COX-1 in these models.[3]

References

1. Ochi, T., Motoyama, Y., and Goto, T. The analgesic effect profile of FR122047, a selective cyclooxygenase-1 inhibitor, in chemical nociceptive models. *Eur. J. Pharmacol.* **391**, 49-54 (2000).
2. Dohi, M., Sakata, Y., Seki, J., *et al.* The anti-platelet actions of FR122047, a novel cyclooxygenase inhibitor. *Eur. J. Pharmacol.* **243**, 179-184 (1993).
3. Ochi, T. and Goto, T. Differential effect of FR122047, a selective cyclo-oxygenase-1 inhibitor, in rat chronic models of arthritis. *Brit. J. Pharmacol.* **135**, 782-788 (2002).

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