

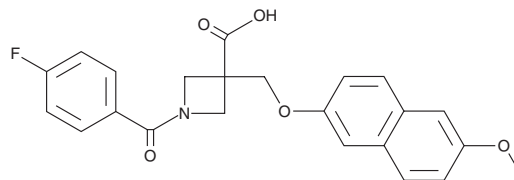
PRODUCT INFORMATION



PF-04418948

Item No. 15016

CAS Registry No.: 1078166-57-0
Formal Name: 1-(4-fluorobenzoyl)-3-[[[6-methoxy-2-naphthalenyl]oxy]methyl]-3-azetidinecarboxylic acid
MF: C₂₃H₂₀FNO₅
FW: 409.4
Purity: ≥98%
UV/Vis.: λ_{max}: 230 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

PF-04418948 is supplied as a crystalline solid. A stock solution may be made by dissolving the PF-04418948 in the solvent of choice, which should be purged with an inert gas. PF-04418948 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PF-04418948 in these solvents is approximately 0.5, 16, and 20 mg/ml, respectively.

PF-04418948 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PF-04418948 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. PF-04418948 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 E₂ (PGE₂) evokes distinct responses through four different 'E prostanoid' (EP) receptors. EP₂ is a G protein-coupled receptor which signals preferentially through G_s proteins. PF-04418948 is an orally active, potent, and selective EP₂ receptor antagonist (IC₅₀ = 16 nM).¹ It is over a thousand-fold less active at other prostanoid receptors, including other EP receptors. PF-04418948 can be used in cells and tissues.^{2,3} In rats, it significantly reduces the effects of the EP₂-selective agonist butaprost on cutaneous blood flow when given orally.¹

References

1. af Forselles, K.J., Root, J., Clarke, T., *et al.* *In vitro* and *in vivo* characterization of PF-04418948, a novel, potent and selective prostaglandin EP₂ receptor antagonist. *Br. J. Pharmacol.* **164(7)**, 1847-1856 (2011).
2. Birrell, M.A., Maher, S.A., Buckley, J., *et al.* Selectivity profiling of the novel EP₂ receptor antagonist, PF-04418948, in functional bioassay systems: Atypical affinity at the guinea pig EP₂ receptor. *Br. J. Pharmacol.* **168(1)**, 129-138 (2013).
3. Säfholm, J., Dahlén, S.E., Delin, I., *et al.* PGE₂ maintains the tone of the guinea pig trachea through a balance between activation of contractile EP₁ receptors and relaxant EP₂ receptors. *Br. J. Pharmacol.* **168(4)**, 794-806 (2013).

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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