

Oclacitinib maleate

Chemical Properties

CAS No. : 1640292-55-2

Formula: C₁₅H₂₃N₅O₂S·C₄H₄O₄

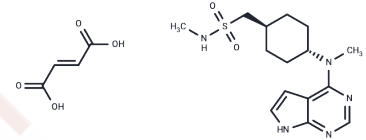
Molecular Weight: 453.51

Storage:

Keep away from direct sunlight, Keep away from moisture, Store under nitrogen

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Oclacitinib maleate (PF-03394197 maleate) is a novel inhibitor of JAK family members, with IC ₅₀ values ranging from 10 to 99 nM, and JAK1-dependent cytokines, with IC ₅₀ ranging from 36 to 249 nM, while not inhibiting a panel of 38 non-JAK kinases.
Targets(IC ₅₀)	JAK, Tyrosine Kinases
In vitro	Oclacitinib inhibits JAK family members by 50% at concentrations ranging from 10 to 99 nM and does not inhibit a panel of 38 non-JAK kinases. Oclacitinib is most potent at inhibiting JAK1. Oclacitinib also inhibits the function of JAK1-dependent cytokines involved in allergy and inflammation as well as pruritus. Oclacitinib has minimal effects on cytokines which does not activate the JAK1 enzyme in cells[1].
In vivo	Oclacitinib administered orally at a dose of 0.4-0.6 mg/kg twice daily is safe and efficacious in controlling the pruritus associated with allergic dermatitis. Oclacitinib provides itch relief within 24 h that persists through the treatment period, with over 70% of the treated dogs achieving a >50% reduction in pruritus by day 7[2].

Solubility Information

Solubility	H ₂ O: 15 mg/mL (33.08 mM), Sonication is recommended. Ethanol: 83 mg/mL (183.02 mM), Sonication is recommended. DMSO: 83 mg/mL (183.02 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (7.28 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.205 mL	11.0251 mL	22.0502 mL
5 mM	0.441 mL	2.205 mL	4.410 mL
10 mM	0.2205 mL	1.1025 mL	2.205 mL
50 mM	0.0441 mL	0.2205 mL	0.441 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Gonzales AJ, et al. J Vet Pharmacol Ther. 2014, 37(4):317-324.

Cosgrove SB, et al. Vet Dermatol. 2013, 24(5):479-e114.

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