Data Sheet (Cat.No.T15037)

TargetMol

Momelotinib Mesylate

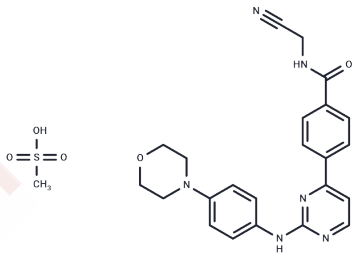
Chemical Properties

CAS No. : 1056636-07-7

Formula: C24H26N6O5S

Molecular Weight: 510.57

Storage: 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	Momelotinib Mesylate is an ATP-competitive JAK1/JAK2 inhibitor (IC50: 11 nM/18 nM). It has 10-fold selectivity versus JAK3.
Targets(IC50)	Autophagy,JAK
In vitro	Momelotinib inhibits the proliferation of parental Ba/F3 cells (Ba/F3-wt) stimulated by IL-3 (IC50: 1400 nM) and it also inhibits PI3K/AKT and Ras/MAPK signaling induced by IL-6 and IGF-1. Momelotinib inhibits erythroid colony growth in vitro from JAK2V617F-positive PV patients with similar potency (IC50: 2 μM-4 μM) [1]. Momelotinib causes the inhibition of cell proliferation in cell lines constitutively activated by JAK2 or MPL signaling, including Ba/F3-MPLW515L cells, Ba/F3-TEL-JAK2 cells and CHRF-288-11 cells (IC50: 200 nM, 1 nM and 700 nM, respectively) and it also induces apoptosis as a single agent and synergizes with the conventional anti-MM therapies bortezomib and melphalan in primary multiple myeloma (MM) cells [2].
In vivo	Momelotinib normalizes white cell counts, spleen size, hematocrit, in a murine MPN model. It also restores physiologic levels of inflammatory cytokines [3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9586 mL	9.793 mL	19.586 mL
5 mM	0.3917 mL	1.9586 mL	3.9172 mL
10 mM	0.1959 mL	0.9793 mL	1.9586 mL
50 mM	0.0392 mL	0.1959 mL	0.3917 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

Pardanani A, et al. CYT387, a selective JAK1/JAK2 inhibitor: in vitro assessment of kinase selectivity and preclinical studies using cell lines and primary cells from polycythemia vera patients. Leukemia, 2009, 23(8), 1441-1445.
Monaghan KA, et al. The novel JAK inhibitor CYT387 suppresses multiple signalling pathways, prevents proliferation and induces apoptosis in phenotypically diverse myeloma cells. Leukemia, 2011, 25(12), 1891-1899.
Tyner JW, et al. CYT387, a novel JAK2 inhibitor, induces hematologic responses and normalizes inflammatory cytokines in murine myeloproliferative neoplasms. Blood, 2010, 115(25), 5232-5240.

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