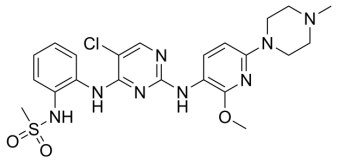
F-1

Cat. No.:	HY-112801
CAS No.:	2244775-31-1
Molecular Formula:	$C_{22}H_{27}ClN_8O_3S$
Molecular Weight:	519.02
Target:	Anaplastic lymphoma kinase (ALK); ROS Kinase
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (240.84 mM; ultrasonic and warming and heat to 65°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9267 mL	9.6335 mL	19.2671 mL
	5 mM	0.3853 mL	1.9267 mL	3.8534 mL
	10 mM	0.1927 mL	0.9634 mL	1.9267 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.01 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.08 mg/mL (4.01 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.01 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

F-1 is a potent ALK and ROS1 dual inhibitor, suppresses phospho-ALK and its relative downstream signaling pathways, with IC_{50}s of 2.1 nM, 2.3 nM, 1.3 nM and 3.9 nM for ALK^{WT}, $ROS1^{WT}$, ALK^{L1196M} and ALK^{G1202R}, respectively[1].

REFERENCES

[1]. Guo M, et al. Dual potent ALK and ROS1 inhibitors combating drug-resistant mutants: Synthesis and biological evaluation of aminopyridine-containing diarylaminopyrimidine derivatives. Eur J Med Chem. 2018 Sep 6;158:322-333.

Caution: Product has not been fully validated for medical applications. For research use only.

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