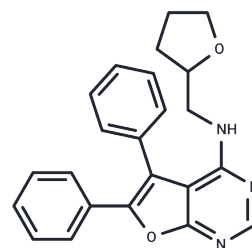


AIM-100

Chemical Properties

CAS No. :	873305-35-2
Formula:	C ₂₃ H ₂₁ N ₃ O ₂
Molecular Weight:	371.43
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	AIM-100 is a Ack1 inhibitor (IC ₅₀ : 24 nM).
Targets(IC ₅₀)	ACK1
In vitro	AIM-100 not only inhibited Ack1 activation but also suppressed AKT tyrosine phosphorylation, leading to cell cycle arrest in the G1 phase [1]. It also was able to suppress AR Tyr(267) phosphorylation and its recruitment to the ATM enhancer. Notably, AIM-100 suppressed Ack1 mediated ATM expression and mitigated the growth of radioresistant CRPC tumors [2]. AIM-100, not only inhibited Ack1 activation but also able to suppress pTyr267-AR phosphorylation, binding of AR to PSA, NKX3.1, and TMPRSS2 promoters, and inhibit AR transcription activity [3].

Solubility Information

Solubility	DMSO: 60 mg/mL (161.54 mM),Sonication is recommended. Ethanol: 30 mg/mL (80.77 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: 2 mg/mL (5.38 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	2.6923 mL	13.4615 mL	26.923 mL
5 mM	0.5385 mL	2.6923 mL	5.3846 mL
10 mM	0.2692 mL	1.3461 mL	2.6923 mL
50 mM	0.0538 mL	0.2692 mL	0.5385 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

Mahajan K, et al. Ack1 tyrosine kinase activation correlates with pancreatic cancer progression. *Am J Pathol.* 2012 Apr;180(4):1386-93.

Mahajan K, et al. Ack1-mediated androgen receptor phosphorylation modulates radiation resistance in castration-resistant prostate cancer. *J Biol Chem.* 2012 Jun 22;287(26):22112-22.

Mahajan K, et al. Effect of Ack1 tyrosine kinase inhibitor on ligand-independent androgen receptor activity. *Prostate.* 2010 Sep 1;70(12):1274-85.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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