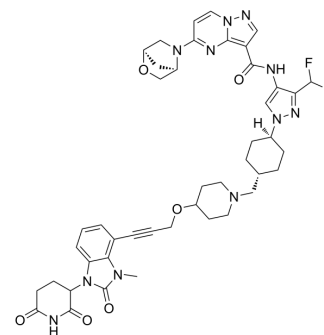


KT-474

Cat. No.:	HY-145483		
CAS No.:	2432994-31-3		
Molecular Formula:	C ₄₄ H ₄₉ F ₂ N ₁₁ O ₆		
Molecular Weight:	865.93		
Target:	IRAK; PROTACs; Apoptosis		
Pathway:	Immunology/Inflammation; PROTAC; Apoptosis		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (115.48 mM; Need ultrasonic)				
		Solvent	Mass		
	Preparing Stock Solutions	Concentration	1 mg	5 mg	10 mg
		1 mM	1.1548 mL	5.7741 mL	11.5483 mL
		5 mM	0.2310 mL	1.1548 mL	2.3097 mL
10 mM		0.1155 mL	0.5774 mL	1.1548 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: ≥ 2.5 mg/mL (2.89 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (2.89 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	KT-474 (KYM-001) is an orally active PROTAC IRAK4 degrader with antitumor activities ^[1] . KT-474 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.
IC₅₀ & Target	IRAK4
In Vitro	KT-474 (1-100 nM) inhibits Resiquimod (HY-13740)-induced and lipopolysaccharide (HY-D1056)-induced IL-6 and IL-8 production by PBMCs ^[2] . KT-474 (10-100 nM) inhibits NF-κB activation (phospho-p65) in CpG-B stimulated B cells ^[2] . KYM-001 (48-72 h) inhibits cell cycle and induces apoptosis in ABC DLBCL, with preferential activity in MYD88-mutant vs MYD88-WT cell lines ^[3] .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

KT-474 (p.o.) induces tumor regression in xenograft models of MYD88-mutant ABC DLBCL^[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Nello Mainolfi, et al. Irak degraders and uses thereof. Patent WO2020113233A1.

[2]. Ackerman L, et al. IRAK4 degrader in hidradenitis suppurativa and atopic dermatitis: a phase 1 trial. Nat Med. 2023 Dec;29(12):3127-3136.

[3]. Joseph F. Kelleher, et al. Abstract LB-272: KYM-001, a first-in-class oral IRAK4 protein degrader, induces tumor regression in xenograft models of MYD88-mutant ABC DLBCL alone and in combination with BTK inhibition. Cancer Res (2019) 79 (13_Supplement): LB-272.

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

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