Proteins

Product Data Sheet

VH032

Cat. No.: HY-120217 CAS No.: 1448188-62-2 Molecular Formula: $C_{24}H_{32}N_4O_4S$ Molecular Weight: 472.6

Ligands for E3 Ligase Target:

Pathway: PROTAC

Storage: -20°C, sealed storage, away from moisture

* In solvent : -80°C, 2 years; -20°C, 1 year (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (211.60 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.1160 mL	10.5798 mL	21.1595 mL
	5 mM	0.4232 mL	2.1160 mL	4.2319 mL
	10 mM	0.2116 mL	1.0580 mL	2.1160 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: ≥ 3.5 mg/mL (7.41 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 3.5 mg/mL (7.41 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 3.5 mg/mL (7.41 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	VH032 is a VHL ligand used in the recruitment of the von Hippel-Lindau (VHL) protein. VH032 is a VHL/HIF- 1α interaction inhibitor with a $K_d[1]^{[2][3]}$.	
IC ₅₀ & Target	VHL	
In Vitro	PROTACs contain two different ligands connected by a linker; one is a ligand for an E3 ubiquitin ligase and the other is for the target protein. PROTACs exploit the intracellular ubiquitin-proteasome system to selectively degrade target proteins ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

CUSTOMER VALIDATION

- J Med Chem. 2023 Jun 2.
- Arch Biochem Biophys. 2022 May 30;721:109194.

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REFERENCES

- [1]. Michael Zengerle, et al. Selective Small Molecule Induced Degradation of the BET Bromodomain Protein BRD4. ACS Chem Biol. 2015 Aug 21;10(8):1770-7.
- [2]. Carles Galdeano, et al. Structure-guided design and optimization of small molecules targeting the protein-protein interaction between the von Hippel-Lindau (VHL) E3 ubiquitin ligase and the hypoxia inducible factor (HIF) alpha subunit with in vitro nanomolar affinities. J Med Chem. 2014 Oct 23;57(20):8657-63.
- [3]. Kwok-Ho Chan, et al. Impact of Target Warhead and Linkage Vector on Inducing Protein Degradation: Comparison of Bromodomain and Extra-Terminal (BET) Degraders Derived from Triazolodiazepine (JQ1) and Tetrahydroquinoline (I-BET726) BET Inhibitor Scaffolds. J Med Chem. 2018 Jan 25;61(2):504-513.

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

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