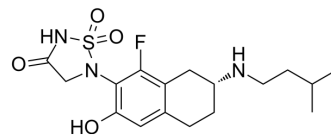


Osunprotafib

Cat. No.:	HY-145923		
CAS No.:	2489404-97-7		
Molecular Formula:	C ₁₇ H ₂₄ FN ₃ O ₄ S		
Molecular Weight:	385.45		
Target:	Phosphatase		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 62.5 mg/mL (162.15 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.5944 mL	12.9719 mL	25.9437 mL
		5 mM	0.5189 mL	2.5944 mL	5.1887 mL
		10 mM	0.2594 mL	1.2972 mL	2.5944 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 (5.40 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (5.40 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Osunprotafib (ABBV-CLS-484) is a potent PTPN1 and PTPN2 inhibitor with subnanomolar activity. Osunprotafib has antitumor activity, enhances the immune response and increases the sensitivity of tumors to immune-mediated killing ^[1] .
In Vitro	Osunprotafib acts on both tumor cells and the host immune system, inducing unique transcriptional changes in the myeloid and lymphocyte populations of the tumor microenvironment, enhancing CD ⁸⁺ T cell activation and effector functions while reducing the expression of genes classically associated with T cell depletion and dysfunction ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Osunprotafib promotes anti-tumor immunity as a monotherapy and, when combined with anti-PD-1, leads to significant tumor regression, even in models resistant to anti-PD-1 treatment, such as 4T1 and EMT6 ^[3] .

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

CUSTOMER VALIDATION

- Nat Commun. 2023 Jul 27;14(1):4524.

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REFERENCES

- [1]. Arvin Iracheta-Vellve, et al. Targeting the immune checkpoint PTPN2 with ABBV-CLS-484 inflames the tumor microenvironment and unleashes potent CD8+ T cell immunity. *Cancer Res* (2022) 82 (12_Supplement): 606.
- [2]. Christina K, et al. ABBV-CLS-484: An active site PTPN2/N1 inhibitor that augments the immune response and sensitizes tumors to immune-mediated killing. *Cancer Res* (2022) 82 (12_Supplement): ND06.
- [3]. Philip R. Kym, et al. Protein tyrosine phosphatase inhibitors and methods of use thereof. WO2022056281A1.
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Caution: Product has not been fully validated for medical applications. For research use only.

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