Proteins

Subasumstat

Cat. No.: HY-111789 CAS No.: 1858276-04-6 Molecular Formula: $C_{25}H_{28}CIN_5O_5S_2$

Molecular Weight: 578.1

Target: E1/E2/E3 Enzyme

Pathway: Metabolic Enzyme/Protease Storage: Powder -20°C 3 years

> In solvent -80°C 6 months

-20°C 1 month

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

DMSO: 16.67 mg/mL (28.84 mM; ultrasonic and warming and heat to 80°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.7298 mL	8.6490 mL	17.2980 mL
	5 mM	0.3460 mL	1.7298 mL	3.4596 mL
	10 mM	0.1730 mL	0.8649 mL	1.7298 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 (4.32 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (4.32 mM); Suspended solution; Need ultrasonic
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.32 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Subasumstat (TAK-981) is a first in class and selective inhibitor of the SUMOylation enzymatic cascade, with potential immune-activating and antineoplastic activities $^{[1][2]}$.
IC ₅₀ & Target	$SUMOylation^{[1]}.$
In Vitro	Subasumstat (TAK-981) is able to increase the production of type 1 IFN, thereby increasing type 1 IFN-mediated signaling, activating innate effector cells and enhancing the antitumor innate immune responses ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

A single sub-cutaneous injection of Subasumstat (TAK-981) in naive Balb/c mice at the brachial lymph nodes induces activation of DCs^[2].

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

CUSTOMER VALIDATION

- Nat Microbiol. 2022 Nov 14.
- J Clin Invest. 2022 May 2;132(9):e152383.
- EMBO Mol Med. 2023 Jul 24;e16431.
- Cell Death Dis. 2023 Feb 21;14(2):147.
- J Cell Sci. 2023 Jul 7;jcs.261119.

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REFERENCES	
[1]. Sumoylation inhibitor TAK-981.	
[2]. TAK-981.	

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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