Proteins

Product Data Sheet

IU1-248

Cat. No.: HY-122885 CAS No.: 2307472-03-1 Molecular Formula: $C_{20}H_{23}N_{3}O_{2}$ Molecular Weight: 337.42

Target: Deubiquitinase

Pathway: Cell Cycle/DNA Damage

Storage: Powder -20°C 3 years

In solvent

2 years -80°C 6 months

-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: 83.33 mg/mL (246.96 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.9637 mL	14.8183 mL	29.6367 mL
	5 mM	0.5927 mL	2.9637 mL	5.9273 mL
	10 mM	0.2964 mL	1.4818 mL	2.9637 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 (6.16 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (6.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description IU1-248, a derivative of IU1, is a potent and selective USP14 inhibitor with an IC $_{50}$ of 0.83 μ M.

In Vitro $IU1-248\ exhibits\ an\ IC_{50}\ value\ of\ 0.83\ \mu\text{M}\ toward\ USP14, which\ is\ comparable\ to\ that\ of\ IU1-47\ (IC_{50}=0.68\ \mu\text{M})\ and\ 10-fold\ a$ more potent than that of IU1 (IC₅₀=12.25 μ M)^[1].

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

REFERENCES

1]. Yiwei Wang, et al. Small mo	lecule inhibitors reveal alloste	ric regulation of USP14 via steri	c blockade. Cell Res. 2018 Dec;28(12):1186	-1194.
	Caution: Product has not	been fully validated for me	dical applications. For research use o	nly.
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