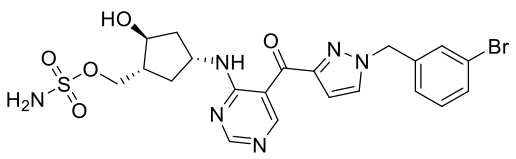
Product data sheet

MedKoo Cat#: 407886 Name: ML-792 CAS#: 1644342-14-2 Chemical Formula: C21H23BrN6O5S Exact Mass: 550.0634 Molecular Weight: 551.42	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 6 months; -20°C 1 month.

1. Product description:

ML-792 is a potent and selective SAE inhibitor with nanomolar potency in cellular assays. ML-792 selectively blocks SAE enzyme activity and total SUMOylation, thus decreasing cancer cell proliferation. Moreover, Induction of the MYC oncogene increased the ML-792-mediated viability effect in cancer cells, thus indicating a potential application of SAE inhibitors in treating MYC-amplified tumors. ML-792 provides rapid loss of endogenously SUMOylated proteins, thereby facilitating novel insights into SUMO biology.

2. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	100	181.35

3. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.15 mL	5.76 mL	11.51 mL
5 mM	0.23 mL	1.15 mL	2.3 mL
10 mM	0.12 mL	0.58 mL	1.15 mL
50 mM	0.02 mL	0.12 mL	0.23 mL

4. Molarity Calculator, Reconstitution Calculator and Dilution Calculator

Please refer the product web page under section of "Calculator"

5. Literature protocols for in vitro and in vivo study

In vitro study	He X, Riceberg J, Soucy T, et al. Probing the roles of SUMOylation in cancer cell biology by using a selective SAE inhibitor. Nat Chem Biol. 2017 Nov;13(11):1164-1171.
In vivo study	Zhou L, Zheng L, et al. SUMOylation stabilizes hSSB1 and enhances the recruitment of NBS1 to DNA damage sites. Signal Transduct Target Ther. 2020 Jun 24;5(1):80.

6. Bioactivity

Biological target	SAE/SUMO1 and SAE/SUMO2 in enzymatic assays (IC50 values of 3 and 11 nM, respectively) Reference: Nat Chem Biol. 2017 Nov;13(11):1164-1171.
In vitro activity	ML-792 was found to be a potent inhibitor of SAE in ATP–inorganic pyrophosphate (PPi) exchange assays (Fig. 1b). The half-maximal inhibitory concentration (IC50) was 0.003 μM or 0.011 μM when SUMO1 or SUMO2 was used as the ubiquitin-like protein (UBL), respectively. Reference: Nat Chem Biol. 2017 Nov;13(11):1164-1171.
In vivo activity	The knocking out UBC9 with two highly efficient lenti-CRISPR sgRNAs did not affect the apoptosis rate in the short term but increased the apoptosis of cancer cells treated with etoposide. These results indicate that targeting SUMOylation enhances the sensitivity of cancer cells to DNA damage agents. Reference: Signal Transduct Target Ther. 2020; 5: 80. web page: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7311467/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.