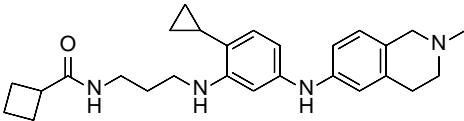


# Product data sheet



MedKoo Cat#: 531223 Name: MRT68921 free base CAS: 1190379-70-4 (free base) Chemical Formula: C <sub>27</sub> H <sub>36</sub> N <sub>4</sub> O Exact Mass: 432.2889 Molecular Weight: 432.612		
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 3 months; -20°C 2 weeks.

## 1. Product description:

MRT68921 is an inhibitor of ULK1 and ULK2 (IC<sub>50</sub>s = 2.9 and 1.1 nM, respectively).

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMF	5.0	11.56
DMF:PBS (pH 7.2) (1:5)	0.16	0.37
DMSO	3.0	6.93
Ethanol	2.0	4.62

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.31 mL	11.56 mL	23.12 mL
5 mM	0.46 mL	2.31 mL	4.62 mL
10 mM	0.23 mL	1.16 mL	2.31 mL
50 mM	0.05 mL	0.23 mL	0.46 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

## 6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Bhattacharya S, Yin J, Yang C, Wang Y, Sims M, Pfeffer LM, Chaum E. STAT3 suppresses the AMPK $\alpha$ /ULK1-dependent induction of autophagy in glioblastoma cells. *J Cell Mol Med.* 2022 Jul;26(14):3873-3890. doi: 10.1111/jcmm.17421. Epub 2022 Jun 6. PMID: 35670018; PMCID: PMC9279602.

2. Avsec D, Jakoš Djordjevič AT, Kandušer M, Podgornik H, Škerget M, Mlinarič-Raščan I. Targeting Autophagy Triggers Apoptosis and Complements the Action of Venetoclax in Chronic Lymphocytic Leukemia Cells. *Cancers (Basel).* 2021 Sep 10;13(18):4557. doi: 10.3390/cancers13184557. PMID: 34572784; PMCID: PMC8466897.

In vivo study

TBD

## 7. Bioactivity

Biological target:

MRT68921 is a potent inhibitor of ULK1 and ULK2, with IC<sub>50</sub> values of 2.9 nM and 1.1 nM.

# Product data sheet



## In vitro activity

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Inhibition of ULK1 activity (by treatment with MRT68921) or its expression (by siRNA knockdown) in STAT3-KO cells inhibits autophagy and sensitizes cells to apoptosis.

Reference: J Cell Mol Med. 2022 Jul;26(14):3873-3890. <https://pubmed.ncbi.nlm.nih.gov/35670018/>

## In vivo activity

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TBD

*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.*