

# Product data sheet



MedKoo Cat#: 562702 Name: 1A-116 CAS#: 1430208-73-3 Chemical Formula: C <sub>16</sub> H <sub>16</sub> F <sub>3</sub> N <sub>3</sub> Exact Mass: 307.1296 Molecular Weight: 307.32	
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:

1A-116 is a specific Rac1 inhibitor.

## 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
DMSO	65.365	212.69
Ethanol	30.73	99.99

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.25 mL	16.27 mL	32.54 mL
5 mM	0.65 mL	3.25 mL	6.51 mL
10 mM	0.33 mL	1.63 mL	3.25 mL
50 mM	0.07 mL	0.33 mL	0.65 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. Cabrera M, Echeverria E, Lenicov FR, Cardama G, Gonzalez N, Davio C, Fernández N, Menna PL. Pharmacological Rac1 inhibitors with selective apoptotic activity in human acute leukemic cell lines. *Oncotarget*. 2017 Oct 4;8(58):98509-98523. doi: 10.18632/oncotarget.21533. PMID: 29228706; PMCID: PMC5716746.

2. Gonzalez N, Cardama GA, Comin MJ, Segatori VI, Pifano M, Alonso DF, Gomez DE, Menna PL. Pharmacological inhibition of Rac1-PAK1 axis restores tamoxifen sensitivity in human resistant breast cancer cells. *Cell Signal*. 2017 Jan;30:154-161. doi: 10.1016/j.cellsig.2016.12.002. Epub 2016 Dec 7. PMID: 27939839.

In vivo study

TBD

## 7. Bioactivity

Biological target:

1A-116 is a Rac1 inhibitor.

In vitro activity

To evaluate the effect of 1A-116 on cell proliferation in leukemic cells, this study measured cell viability by the MTS metabolic assay. 1A-116 inhibited cell proliferation in a concentration-dependent manner, showing enhanced efficacy in Jurkat cells reaching a 100%

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inhibition in cell proliferation. Moreover, in the more undifferentiated cellular models of myeloid leukemia (HL-60 and KG1A), 1A-116 showed a left shift in the concentration response curves indicating an increased potency in its antiproliferative activity (Figure 9A).

Reference: Oncotarget. 2017 Nov 17; 8(58): 98509–98523. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5716746/>

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.*