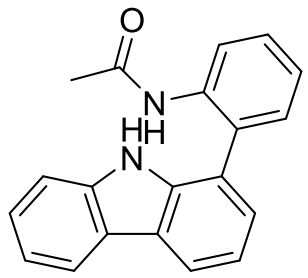
Product data sheet

MedKoo Cat#: 563775 Name: GeA-69 CAS: 2143475-98-1 Chemical Formula: $C_{20}H_{16}N_2O$ Exact Mass: 300.1263 Molecular Weight: 300.361	
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:
GeA-69 is a novel selective allosteric inhibitor targeting macrodomain 2 of poly-adenosine-diphosphate-ribose polymerase 14.

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	92.5	307.96
Ethanol	10.0	33.29

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	3.33 mL	16.65 mL	33.29 mL
5 mM	0.67 mL	3.33 mL	6.66 mL
10 mM	0.33 mL	1.66 mL	3.33 mL
50 mM	0.07 mL	0.33 mL	0.67 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. Schuller M, Riedel K, Gibbs-Seymour I, Uth K, Sieg C, Gehring AP, Ahel I, Bracher F, Kessler BM, Elkins JM, Knapp S. Discovery of a Selective Allosteric Inhibitor Targeting Macrodomain 2 of Polyadenosine-Diphosphate-Ribose Polymerase 14. ACS Chem Biol. 2017 Nov 17;12(11):2866-2874. doi: 10.1021/acschembio.7b00445. Epub 2017 Oct 19. PMID: 28991428; PMCID: PMC6089342.

In vivo study

TBD

7. Bioactivity
Biological target:

GeA-69 is a selective, allosteric inhibitor of poly-adenosine-diphosphate-ribose polymerase 14 (PARP14) targeting macrodomain 2, with a Kd of 2.1 µM.

In vitro activity

The macrodomain recruitment was significantly decreased in cells pre-treated with 50 µM GeA-69 and completely prevented in cells exposed to 250 µM GeA-69. As expected, the negative control MnK2-68 did not interfere with PARP14 MD2 recruitment and further, GeA-69 did not affect the recruitment of an alternative macrodomain containing protein, YFP-ALC1. Although a high inhibitor

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concentration had to be applied to completely prevent PARP14 MD2 recruitment to DNA damage sites, these experiments proved that GeA-69 engages PARP14 MD2 in intact cells.

Reference: ACS Chem Biol. 2017 Nov 17;12(11):2866-2874. https://pubmed.ncbi.nlm.nih.gov/28991428/

In vivo activity

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.