

Product data sheet



MedKoo Cat#: 530576 Name: 10074-G5 CAS#: 413611-93-5 Chemical Formula: C ₁₈ H ₁₄ N ₄ O ₃ Exact Mass: 334.335 Molecular Weight: 334.335	
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:

10074-G5 is a c-Myc/Max interaction inhibitor. 10074-G5, similarly to 10058-F4 (#F3680), specifically inhibits this interaction by binding to c-Myc, thus preventing C-Myc specific DNA binding and target genes regulation.

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	38.0	113.66
DMSO:PBS (pH 7.2) (1:4)	0.2	0.60
DMF	20.0	59.82
Ethanol	6.0	17.95

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.99 mL	14.96 mL	29.91 mL
5 mM	0.60 mL	2.99 mL	5.98 mL
10 mM	0.30 mL	1.50 mL	2.99 mL
50 mM	0.06 mL	0.30 mL	0.60 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

- Lao-On U, Rojvirat P, Chansongkrow P, Phannasil P, Siritutsoontorn S, Charoensawan V, Jitrapakdee S. c-Myc directly targets an over-expression of pyruvate carboxylase in highly invasive breast cancer. *Biochim Biophys Acta Mol Basis Dis.* 2020 Mar 1;1866(3):165656. doi: 10.1016/j.bbadis.2019.165656. Epub 2019 Dec 23. PMID: 31874204.
- Aksoz M, Albayrak E, Aslan GS, Turan RD, Alyazici LY, Siyah P, Tuysuz EC, Canikyan S, Yucel D, Meric N, Gulbas Z, Sahin F, Kocabas F. c-Myc Inhibitor 10074-G5 Induces Murine and Human Hematopoietic Stem and Progenitor Cell Expansion and HDR Modulator Rad51 Expression. *Curr Cancer Drug Targets.* 2019;19(6):479-494. doi: 10.2174/1568009618666180905100608. PMID: 30182856.

In vivo study

TBD

7. Bioactivity

Biological target:

Product data sheet



10074-G5 is an inhibitor of c-Myc-Max dimerization with an IC₅₀ of 146 μ M.

In vitro activity

As shown in Fig. 2A, exposure of MDA-MB-231 cells with 10074-G5 at 10 μ M, 25 μ M and 50 μ M decreased the expression of PC mRNA to 70%, 30% and 20%, respectively. Consistent with mRNA level, 10074-G5 at 10 μ M minimally affected expression of PC expression at the protein level while at concentrations of 25 μ M and 50 μ M suppressed expression of PC protein by 80–90% (Fig. 2B). In contrast, 10074-G5 did not affect the expression of both PC mRNA and PC protein in MCF-7 cells (Fig. 2C and D). The lack of inhibitory effect of 10074-G5 on PC expression in MCF-7 cells was likely caused by lowered expression level of endogenous c-Myc. While inhibition of c-Myc-regulation of PC expression with 10 μ M and 25 μ M 10074-G5 did not affect growth of MDA-MB-231 cells, treatment of cells with 50 μ M 10074-G5 resulted in 25% and 40% decrease in cell growth at days 2 and 3, respectively (Fig. 2E).

Reference: Biochim Biophys Acta Mol Basis Dis. 2020 Mar 1;1866(3):165656. <https://pubmed.ncbi.nlm.nih.gov/31874204/>

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.