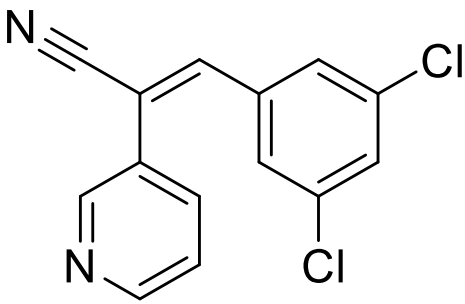


Product data sheet



MedKoo Cat#: 526118 Name: RG-14620 CAS#: 136831-49-7 Chemical Formula: C ₁₄ H ₈ Cl ₂ N ₂ Exact Mass: 274.0065 Molecular Weight: 275.13	
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:

RG-14620 is an EGFR inhibitor. It is a non-phenolic tyrphostin analog, which is selective for the EGF receptor and long acting. It inhibits EGF-stimulated HER14 cell proliferation (IC₅₀=3 μM) as well as tumor growth in vivo.

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	20	72.69
DMSO	20	72.69
Ethanol	1	3.63

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.63 mL	18.17 mL	36.35 mL
5 mM	0.73 mL	3.63 mL	7.27 mL
10 mM	0.36 mL	1.82 mL	3.63 mL
50 mM	0.07 mL	0.36 mL	0.73 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. Wu CP, Hsiao SH, Murakami M, Lu MJ, Li YQ, Hsieh CH, Ambudkar SV, Wu YS. Tyrphostin RG14620 selectively reverses ABCG2-mediated multidrug resistance in cancer cell lines. *Cancer Lett.* 2017 Nov 28;409:56-65. doi: 10.1016/j.canlet.2017.08.035. Epub 2017 Sep 8. PMID: 28893612; PMCID: PMC5634936.
2. Grunt TW. Tyrphostins and retinoids cooperate during inhibition of in vitro growth of ovarian cancer cells. *Cancer Lett.* 2003 Jan 28;189(2):147-56. doi: 10.1016/s0304-3835(02)00512-8. PMID: 12490307.

In vivo study

1. Yoneda T, Lyall RM, Alsina MM, Persons PE, Spada AP, Levitzki A, Zilberstein A, Mundy GR. The antiproliferative effects of tyrosine kinase inhibitors tyrphostins on a human squamous cell carcinoma in vitro and in nude mice. *Cancer Res.* 1991 Aug 15;51(16):4430-5. PMID: 1651159.

7. Bioactivity

Biological target:

RG-14620 is an inhibitor of epidermal growth factor (EGF) receptor kinase with an IC₅₀ value of 3 μM in HT-22 cells.

Product data sheet



In vitro activity

RG-14620 enhances drug-induced apoptosis and restores chemosensitivity to ABCG2-overexpressing multidrug-resistant cancer cells. It also stimulates ATP hydrolysis and inhibits photoaffinity labeling of ABCG2 with IAAP. RG-14620 may be useful to overcome chemoresistance in patients with drug-resistant tumors.

Reference: Cancer Lett. 2017 Nov 28;409:56-65. <https://pubmed.ncbi.nlm.nih.gov/28893612/>

In vivo activity

RG-14620 suppressed tumor growth in nude mice.

Reference: Cancer Res. 1991 Aug 15;51(16):4430-5. <https://pubmed.ncbi.nlm.nih.gov/1651159/>

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.