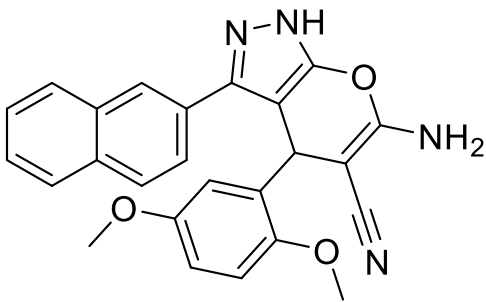


# Product data sheet



MedKoo Cat#: 406737 Name: RBC8 CAS: 361185-42-4 Chemical Formula: C <sub>25</sub> H <sub>20</sub> N <sub>4</sub> O <sub>3</sub> Exact Mass: 424.1535 Molecular Weight: 424.46		
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:

RBC8 is a RalA and RalB GTPase inhibitor (EC<sub>50</sub> ~3.5 μM). RBC8 suppresses growth of xenograft tumors in mice. e Ras-like GTPases RalA and RalB are important drivers of tumour growth and metastasis. Chemicals that block Ral function would be valuable as research tools and for cancer therapeutics.

## 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	30	70.68
DMSO	30	70.68
Ethanol	0.25	0.59

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.36 mL	11.78 mL	23.56 mL
5 mM	0.47 mL	2.36 mL	4.71 mL
10 mM	0.24 mL	1.18 mL	2.36 mL
50 mM	0.05 mL	0.24 mL	0.47 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

To be determined

In vivo study

- Walsh TG, Wersäll A, Poole AW. Characterisation of the Ral GTPase inhibitor RBC8 in human and mouse platelets. Cell Signal. 2019 Jul;59:34-40. doi: 10.1016/j.cellsig.2019.03.015. Epub 2019 Mar 14. PMID: 30880223; PMCID: PMC6510928.
- Yan C, Liu D, Li L, Wempe MF, Guin S, Khanna M, Meier J, Hoffman B, Owens C, Wysoczynski CL, Nitz MD, Knabe WE, Ahmed M, Brautigan DL, Paschal BM, Schwartz MA, Jones DN, Ross D, Meroueh SO, Theodorescu D. Discovery and characterization of small molecules that target the GTPase Ral. Nature. 2014 Nov 20;515(7527):443-7. doi: 10.1038/nature13713. Epub 2014 Sep 14. PMID: 25219851; PMCID: PMC4351747.

## 7. Bioactivity

Biological target:

# Product data sheet



RBC8 prevents binding of the GTPase to the Ral-binding protein. RBC8 prevented Ral-mediated spreading of murine embryonic fibroblasts, blocked anchorage-independent growth of H2122 and H358 lung cancer cell lines (IC50s = 3.5 and 3.4  $\mu$ M, respectively), and inhibited the growth of H2122 lung cancer xenografts in mice (50 mg/kg i.p.).

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## In vitro activity

To be determined

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## In vivo activity

RBC8 and BQU57 show selectivity for Ral relative to the GTPases Ras and RhoA and inhibit tumour xenograft growth to a similar extent to the depletion of Ral using RNA interference.

Reference: Nature. 2014 Nov 20;515(7527):443-7. <https://pubmed.ncbi.nlm.nih.gov/25219851/>

*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.*