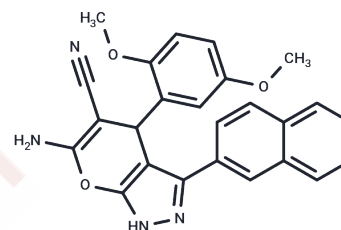


RBC8

Chemical Properties

CAS No. :	361185-42-4
Formula:	C ₂₅ H ₂₀ N ₄ O ₃
Molecular Weight:	424.45
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	RBC8 is a specific GTPases RalA/RalB inhibitor by inhibiting the binding of Ral to its effector RALBP1, no inhibition on the GTPases RhoA and Ras.
Targets(IC50)	GTPase,JNK,p38 MAPK,Ras
In vitro	In mice bearing H358 xenografts, RBC8 administered intraperitoneally (i.p.) at a dosage of 50 mg/kg specifically inhibits RalA and RalB, thereby suppressing tumor growth.
In vivo	Within living cells, RBC8k can induce a chemical shift change in RalB-GDP, thereby diminishing the activation of RalA. In Ral-dependent H2122 (IC50: 3.5 μM) and H358 (IC50: 3.4 μM) models, RBC8 leads to the inhibition of anchorage-independent growth.
Cell Research	Growth inhibition of human lung cancer cells by the compounds is measured under anchorage-independent conditions in soft agar. Cells are seeded into 6-well plates (coated with a base layer made of 2.0 ml of 1% low-melting-point agarose) at 15,000 cells per well in 3.0 mL of 0.4% low-melting-point agarose containing various concentration of drug. Two to four weeks (depending on the cell line) after incubation, the cells are stained with 1.0 mg ml ⁻¹ nitroblue tetrazolium, and colonies are counted under a microscope. The IC50 values are defined as the concentration of drug that resulted in a 50% reduction in colony number compared with the DMSO-treated control. (Only for Reference)

Solubility Information

Solubility	DMSO: 42.4 mg/mL (99.89 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.71 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.356 mL	11.780 mL	23.5599 mL
5 mM	0.4712 mL	2.356 mL	4.712 mL
10 mM	0.2356 mL	1.178 mL	2.356 mL
50 mM	0.0471 mL	0.2356 mL	0.4712 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Yan C, et al. Nature. 2014, 515(7527), 443-447.

Wang P, Zhang W, Wang L, et al. RCC2 Interacts with Small GTPase RalA and Regulates Cell Proliferation and Motility in Gastric Cancer. OncoTargets and Therapy. 2020, 13: 3093

Wang P, Zhang W, Wang L, et al. RCC2 Interacts with Small GTPase RalA and Regulates Cell Proliferation and Motility in Gastric Cancer[J]. OncoTargets and therapy. 2020, 13: 3093.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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