Data Sheet (Cat.No.T4173)

TargetMol

R162

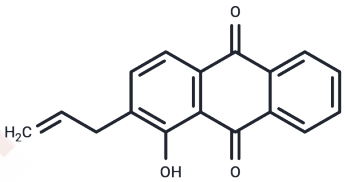
Chemical Properties

CAS No. : 64302-87-0

Formula: C17H12O3

Molecular Weight: 264.28

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	R162 is an effective glutamate dehydrogenase 1 (GDH1) inhibitor.
Targets(IC50)	Others,Dehydrogenase
In vitro	R162 decreased intracellular fumarate levels attenuated GPx activity by inhibited GDH1 activity, increased ROS levels, and reduced cell proliferation in H1299 and MDA-MB231 cells. R162 inhibits tumor growth potential and cell proliferation of human cancer cells.
In vivo	In xenograft tumor mouse models, R162 (30 mg/kg/day, i.p.) does not cause a significant histopathological change between the vehicle-treated and R162-treated groups, nor alters complete blood counts, or hematopoietic properties. Compared with control mice, R162 (20 mg/kg/day) markedly decreases tumor growth and masses and effectively inhibits GDH1 activity in resected tumors from xenograft nude mice.

Solubility Information

Solubility	DMSO: 7.3 mg/mL (27.62 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 0.74 mg/mL (2.8 mM),Suspension. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7839 mL	18.9193 mL	37.8387 mL
5 mM	0.7568 mL	3.7839 mL	7.5677 mL
10 mM	0.3784 mL	1.8919 mL	3.7839 mL
50 mM	0.0757 mL	0.3784 mL	0.7568 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

Jin L, et al. Glutamate dehydrogenase 1 signals through antioxidant glutathione peroxidase 1 to regulate redox homeostasis and tumor growth. Cancer Cell. 2015 Feb 9;27(2):257-70.