



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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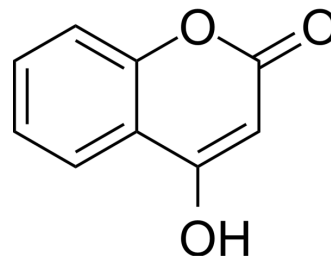
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## 4-Hydroxycoumarin

Cat. No.:	HY-N6856		
CAS No.:	1076-38-6		
Molecular Formula:	C <sub>9</sub> H <sub>6</sub> O <sub>3</sub>		
Molecular Weight:	162.14		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (616.75 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	6.1675 mL	30.8375 mL	61.6751 mL
				5 mM	1.2335 mL	6.1675 mL	12.3350 mL
				10 mM	0.6168 mL	3.0838 mL	6.1675 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (12.83 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (12.83 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (12.83 mM); Clear solution						

### BIOLOGICAL ACTIVITY

Description	4-Hydroxycoumarin is an orally active coumarin derivative, one of the most versatile heterocyclic scaffolds, often used in the synthesis of various organic compounds. 4-Hydroxycoumarin possesses both electrophilic and nucleophilic properties. 4-Hydroxycoumarin is an HIV protease inhibitor and tyrosine kinase inhibitor. 4-Hydroxycoumarin has anti-inflammatory, antibacterial and anti-tumor effects <sup>[1][2][3][4]</sup> .
In Vitro	4-Hydroxycoumarin (0, 50, 160, 500 μM, 24 h) disrupts the actin cytoskeleton in B16-F10 melanoma cells but not in B82 fibroblasts. However, they can reduce their adhesion and motility to extracellular matrix proteins <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay <sup>[2]</sup>

Cell Line:	B16-F10, B82
Concentration:	0, 50, 160, 500 $\mu$ M
Incubation Time:	24 h
Result:	Had no appreciable effect on cell viability.

#### Western Blot Analysis <sup>[2]</sup>

Cell Line:	B16-F10
Concentration:	0, 50, 160, 500 $\mu$ M
Incubation Time:	24 h
Result:	Reduced the adhesion to ECM proteins and the tyrosine phosphorylation of several proteins in a concentration-dependent manner. Inhibited the migration at 500 $\mu$ M.

#### In Vivo

4-Hydroxycoumarin (10, 20 or 40 mg/kg/day, oral gavage) can effectively inhibit tumor growth and improve survival rate in melanoma mice<sup>[3]</sup>.

4-Hydroxycoumarin (5, 10, 25, 50 mg/kg/ day, Oral gavage) can significantly reduce symptoms in a rat model of trinitrobenzene sulfonic acid-induced colitis<sup>[4]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Mouse melanoma model <sup>[3]</sup>
Dosage:	10, 20 or 40 mg/kg
Administration:	i.g.
Result:	Reduced >85% of the number of pulmonary tumors. Diminished the tumor size from day 22 and increased survival time at 10 mg/kg/day.

Animal Model:	Rat colitis model <sup>[4]</sup>
Dosage:	5, 10, 25, 50 mg/kg
Administration:	p.o.
Result:	Reduced damage score and extension of the lesion at doses of 10 and 25 mg/kg. Counteracted GSH content and reduced AP activity at a dose of 5 mg/kg. Showed a good recovery of the intestinal cytoarchitecture at doses of 5 and 25 mg/kg.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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