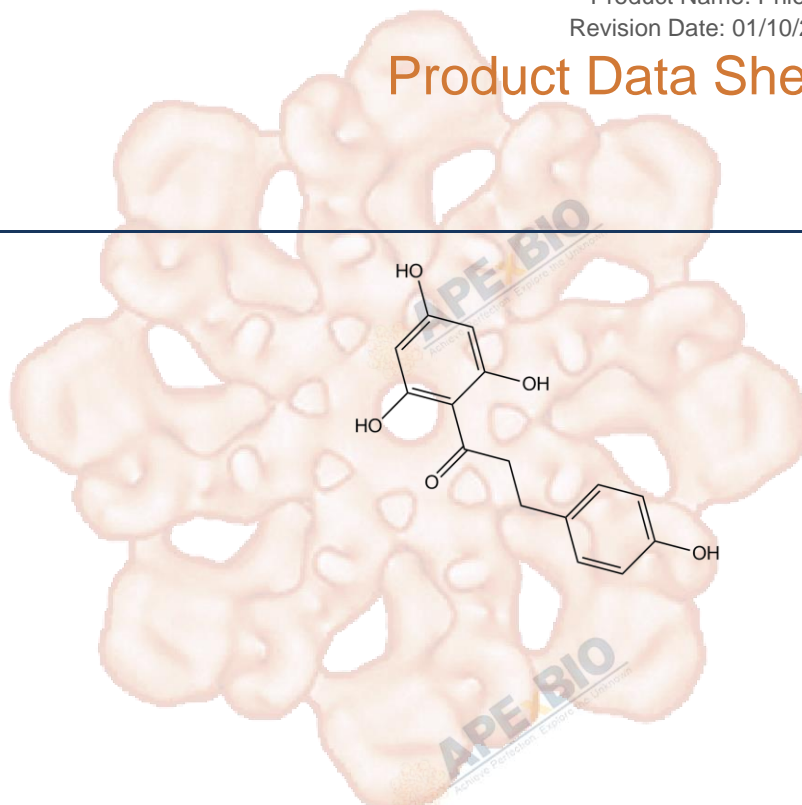


# Product Data Sheet

## Phloretin

<b>Cat. No.:</b>	A3723
<b>CAS No.:</b>	60-82-2
<b>Formula:</b>	C <sub>15</sub> H <sub>14</sub> O <sub>5</sub>
<b>M.Wt:</b>	274.27
<b>Synonyms:</b>	NSC 407292;RJC 02792
<b>Target:</b>	GPCR/G protein
<b>Pathway:</b>	GLUT1
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in H<sub>2</sub>O; ≥105 mg/mL in DMSO; ≥87.6 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	3.6460 mL	18.2302 mL	36.4604 mL
	<b>5 mM</b>	0.7292 mL	3.6460 mL	7.2921 mL
	<b>10 mM</b>	0.3646 mL	1.8230 mL	3.6460 mL

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

Shortsummary

A dihydrochalcone found in apple

IC<sub>50</sub> & Target

In Vitro

#### Cell Viability Assay

Cell Line: U87 and U251 cell lines

Preparation method: The solubility of this compound in DMSO is >9.25mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions: 0-300 μM; 12, 24, and 48 h; 37°C

	Applications:	In U87 and U251 cell lines, Phloretin inhibited colony formation in a concentration-dependent manner. Phloretin also inhibited cell growth in a concentration- and time-dependent way. In U87 cells, Phloretin induced cell cycle arrest at the G0-G1 phase and significantly induced apoptosis. Phloretin also triggered the mitochondrial apoptosis pathway and generated reactive oxygen species (ROS).
In Vivo	<b>Animal experiment</b>	
	Animal models:	ovalbumin (OVA)-induced asthmatic mice
	Dosage form:	5, 10, or 20 mg/kg; intraperitoneally injection
	Applications:	In ovalbumin (OVA)-induced asthmatic mice, Phloretin (PT) could significantly diminish airway hyperresponsiveness (AHR). Phloretin significantly reduced numbers of eosinophils and total cells in bronchoalveolar lavage fluid (BALF). Phloretin also decreased malondialdehyde levels in the lung and reduced Th2 cytokine production in bronchoalveolar lavage fluids.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Huang WC1, Fang LW2, Liou CJ3, et al. Phloretin Attenuates Allergic Airway Inflammation and Oxidative Stress in Asthmatic Mice. *Front Immunol.* 2017 Feb 13;8:134.
- [2] Najafian M, Jahromi M Z, Nowroznejhad M J, Phloridzin reduces blood glucose levels and improves lipids metabolism in streptozotocin-induced diabetic rats. *Mol Biol Rep.* 2012, 39(5): 5299-306.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

*Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.*



**APExBIO Technology**

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