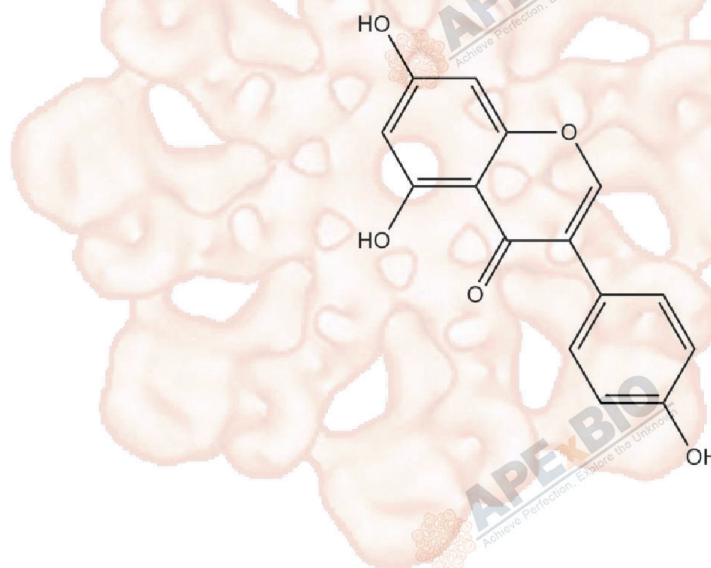


Product Data Sheet

Genistein

Cat. No.:	A2198
CAS No.:	446-72-0
Formula:	C ₁₅ H ₁₀ O ₅
M.Wt:	270.24
Synonyms:	
Target:	DNA Damage/DNA Repair
Pathway:	Topoisomerase
Storage:	Store at -20°C



Solvent & Solubility

≥ 13.5 mg/mL in DMSO; insoluble in H₂O; ≥ 2.59 mg/mL in EtOH with gentle warming

In Vitro	Preparing Stock Solutions	Mass			
		Solvent Concentration	1mg	5mg	10mg
		1 mM	3.7004 mL	18.5021 mL	37.0041 mL
		5 mM	0.7401 mL	3.7004 mL	7.4008 mL
		10 mM	0.3700 mL	1.8502 mL	3.7004 mL

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

Biological Activity

Shortsummary	ER agonist	
IC ₅₀ & Target		
In Vitro	Cell Viability Assay	
	Cell Line:	NIH-3T3 cells
	Preparation method:	The solubility of this compound in DMSO is > 55.6 mg/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 ~ 1000 μM
	Applications:	NIH-3T3 cell growth was inhibited after Genistein treatment at concentrations of 4 ~ 75 μM for 72 hrs. At concentrations below 40 μM , Genistein-treated cells recovered growth after drug withdrawal. In contrast, at 75 μM or above, Genistein-treated cells were unable to recover growth. Cytotoxicity assessed by cloning efficiency measured after 3 hrs of Genistein treatment showed an ED50 value of 35 μM .
In Vivo	Animal experiment	
	Animal models:	Female SD rats
	Dosage form:	0, 25 and 250 mg Genistein/kg AIN-76A; p.o.
	Applications:	In female SD rats, Genistein dose-dependently suppressed dimethylbenz[a]anthracene (DMBA)-induced mammary tumor development. Rats exposed to 25 and 250 mg Genistein/kg AIN-76A showed 7.1 and 4.3 mammary tumors, respectively. Dietary Genistein protected against mammary tumors through regulating specific sex steroid receptors as well as growth factor signaling pathways.
	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.

References

- [1]. Linassier C, Pierre M, Le Pecq JB, Pierre J. Mechanisms of action in NIH-3T3 cells of genistein, an inhibitor of EGF receptor tyrosine kinase activity. *Biochem Pharmacol.* 1990 Jan 1;39(1):187-93.
- [2]. Lamartiniere CA, Cotroneo MS, Fritz WA, Wang J, Mentor-Marcel R, Elgavish A. Genistein chemoprevention: timing and mechanisms of action in murine mammary and prostate. *J Nutr.* 2002 Mar;132(3):552S-558S.

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. Shortterm 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.



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