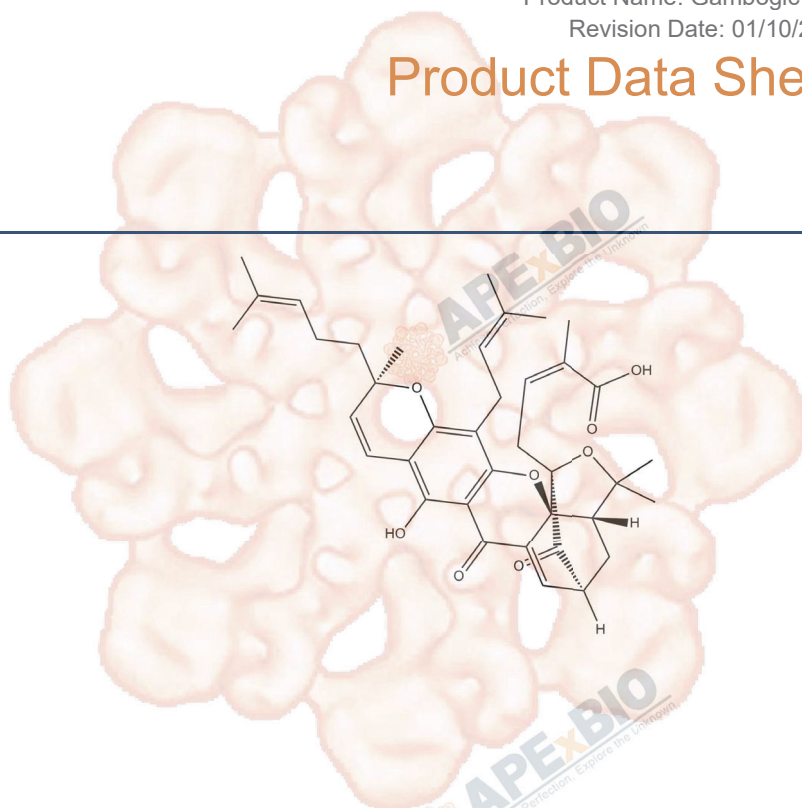


# Product Data Sheet

## Gambogic Acid

<b>Cat. No.:</b>	A3424
<b>CAS No.:</b>	2752-65-0
<b>Formula:</b>	C38H44O8
<b>M.Wt:</b>	628.75
<b>Synonyms:</b>	Beta-Guttiferrin, Gambogic
<b>Target:</b>	Apoptosis
<b>Pathway:</b>	Caspase
<b>Storage:</b>	Store at -20°C



## Solvent & Solubility

≥22.45 mg/mL in DMSO, ≥48.2 mg/mL in EtOH, insoluble in H<sub>2</sub>O

In Vitro	Preparing Stock Solutions	Mass			
		Solvent Concentration	1mg	5mg	10mg
		<b>1 mM</b>	1.5905 mL	7.9523 mL	15.9046 mL
		<b>5 mM</b>	0.3181 mL	1.5905 mL	3.1809 mL
		<b>10 mM</b>	0.1590 mL	0.7952 mL	1.5905 mL

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

## Biological Activity

Shortsummary	Caspase activator and apoptosis inducer	
IC <sub>50</sub> & Target	0.78-1.64 μM (EC <sub>50</sub> ) (caspases), 1.47 μM (Bcl-XL), 1.21 μM (Bcl-2), 2.02 μM (Bcl-W), 0.66 μM (Bcl-B), 1.06 μM (Bfl-1)	
In Vitro	<b>Cell Viability Assay</b>	
	Cell Line:	MGC-803 cells
	Preparation method:	The solubility of this compound in DMSO is >10 mM. 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:	1 μg/ml, 48 h

	Applications:	After exposure of MGC-803 cells to GA (1 µg/ml) for 24, 48, and 72 h, the apoptosis rate was 38.56, 73.70, and 71.77%, respectively. The proportion of G2/M phase cells increased after being treated with GA. Under an inverted-microscope, after cultured with GA 1 mg/ml for 48 h, many MGC-803 cells turned round in shape and necrosed; the untreated cells grew well and the skeleton was clear. Under electron microscope, “dotted” chromatins were found; in a large quantity of tumor cells these condensed chromatin divided into “Apoptosis bodies”.
In Vivo	<b>Animal experiment</b>	
	Animal models:	BALB/c nude mice bearing SMMC-7721 xenografts
	Dosage form:	Intravenous injection, 2, 4, and 8 mg/kg, 3 times per week
	Applications:	The results indicated that iv injection of GGA 2, 4, and 8 mg/kg inhibited dramatically the growth of human hepatocellular cell line SMMC-7721 in nude mice from the early administration.
	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] Zhao L, Guo Q L, You Q D, et al. Gambogic acid induces apoptosis and regulates expressions of Bax and Bcl-2 protein in human gastric carcinoma MGC-803 cells. Biological and Pharmaceutical Bulletin, 2004, 27(7): 998-1003.
- [2] Guo Q L, You Q D, Wu Z Q, et al. General gambogic acids inhibited growth of human hepatoma SMMC-7721 cells in vitro and in nude mice. Acta Pharmacologica Sinica, 2004, 25: 769-774.

## 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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