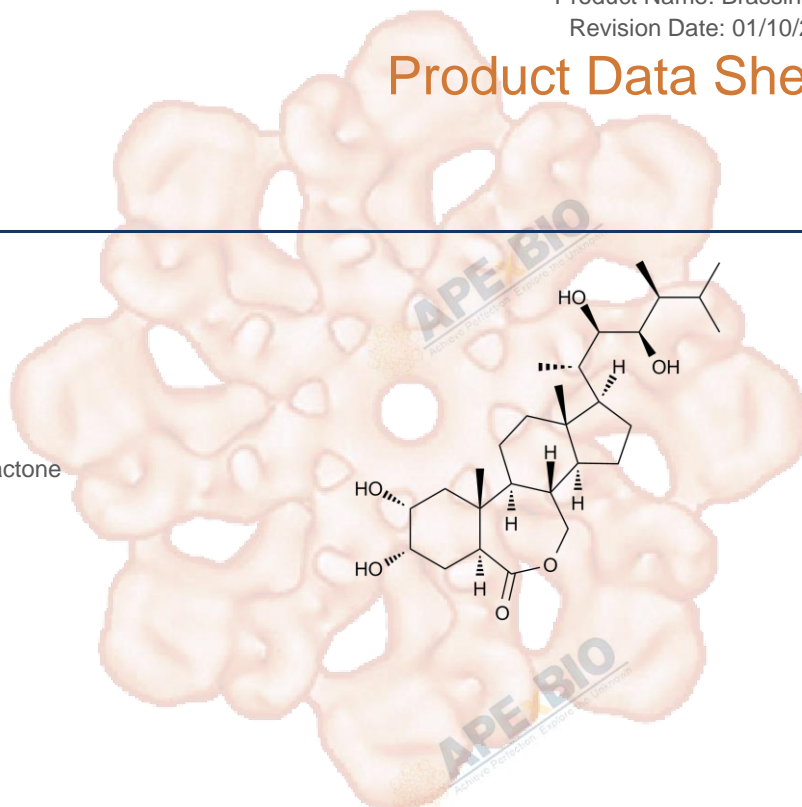


# Product Data Sheet

## Brassinolide

<b>Cat. No.:</b>	A3265
<b>CAS No.:</b>	72962-43-7
<b>Formula:</b>	C <sub>28</sub> H <sub>48</sub> O <sub>6</sub>
<b>M.Wt:</b>	480.68
<b>Synonyms:</b>	24-Epibrassinolide, Brassin lactone
<b>Target:</b>	Apoptosis
<b>Pathway:</b>	Apoptosis Inducers
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

≥48.1 mg/mL in DMSO with gentle warming; insoluble in H<sub>2</sub>O; ≥52.3 mg/mL in EtOH with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass	Concentration		
			1mg	5mg	10mg
	1 mM		2.0804 mL	10.4019 mL	20.8039 mL
	5 mM		0.4161 mL	2.0804 mL	4.1608 mL
	10 mM		0.2080 mL	1.0402 mL	2.0804 mL

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

### Biological Activity

Shortsummary

Plant growth regulator

IC<sub>50</sub> & Target

#### Cell Viability Assay

In Vitro

Cell Line:	Human prostate cancer PC-3 cell
Preparation method:	The solubility of this compound in DMSO is >24.1mg/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:	10, 20 and 40 $\mu$ M; 12, 24 and 36 h
	Applications:	Brassinolide induced a time and concentration-dependent cytotoxicity in PC-3 cells. Brassinolide (10, 20 and 40 $\mu$ M, 12 h) induced a concentration-dependent increase in the apoptotic rate and marked accumulation in G2/M phase of cell cycle. PC-3 cells treated with brassinolide (20 $\mu$ M, 24 h) showed characteristic apoptotic alterations: shrinking cellular figure, decreasing cell surface microvilli, cytoplasmic vacuoles, chromatin condensation. PC-3 cells treated with brassinolide (20 $\mu$ M) for 6, 12 and 18 h showed a time-dependent increase in the activity of caspases-3.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Diabetes rats
	Dosage form:	Oral administration; 200,100,and 50 mg/kg; once every day for 7 days
	Applications:	Oral administration of Brassinolide decreased the levels of blood glucose from 19.71-24.10 mmol/L to 9.89 mmol/L-12.70 mmol/L. The levels of blood glucose displayed significant differences after treatment with different dose of brassinolide. Brassinolide can still reduce the blood glucose levels without toxicity effect even at a lower dose.
	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]. Wu Y D, Lou Y J. Brassinolide, a plant sterol from pollen of Brassica napus L., induces apoptosis in human prostate cancer PC-3 cells[J]. Die Pharmazie-An International Journal of Pharmaceutical Sciences, 2007, 62(5): 392-395.
- [2]. CHEN S, HE J, WANG Q, et al. Effect of Brassinolide on Levels of Blood Glucose in Alloxan—induced Diabetes Rats [J][J]. Laboratory Animal Science, 2009, 3: 007.

## 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 APExBIO products are stable

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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.



## **APExBIO Technology**

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