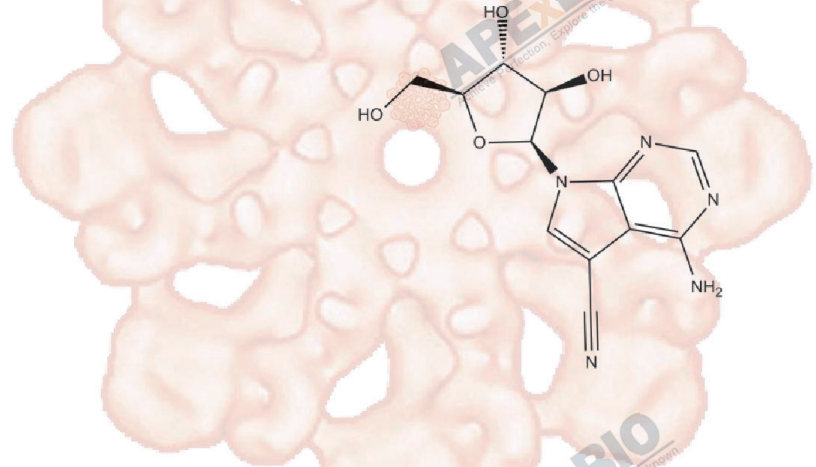


# Product Data Sheet

## Toyocamycin

<b>Cat. No.:</b>	B7795
<b>CAS No.:</b>	606-58-6
<b>Formula:</b>	C <sub>12</sub> H <sub>13</sub> N <sub>5</sub> O <sub>4</sub>
<b>M.Wt:</b>	291.26
<b>Synonyms:</b>	
<b>Target:</b>	Microbiology & Virology
<b>Pathway:</b>	Antibiotic
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

≥77 mg/mL in DMSO; ≥1.16 mg/mL in EtOH with gentle warming and ultrasonic; ≥1.34 mg/mL in H<sub>2</sub>O with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Mass		1mg	5mg	10mg
	Solvent	Concentration			
		<b>1 mM</b>	3.4334 mL	17.1668 mL	34.3336 mL
		<b>5 mM</b>	0.6867 mL	3.4334 mL	6.8667 mL
		<b>10 mM</b>	0.3433 mL	1.7167 mL	3.4334 mL

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

### Biological Activity

Shortsummary

Adenosine analog, antitumor antibiotic

 IC<sub>50</sub> & Target

In Vitro

#### Cell Viability Assay

Cell Line:	three MM cell lines, RPMI8226, XG7 and U266
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:	0.01, 0.03 and 0.1 μM; 24 h
Applications:	In RPMI8226 cells, treatment with 10 nM or higher concentrations of

		toyocamycin reduced the levels of spliced isoform of XBP1 protein and resulted in caspase activation. Toyocamycin also reduced the levels of spliced-XBP1 in two other MM cell lines XG7 and U266. Toyocamycin also inhibited thapsigargin-induced expression of spliced XBP1 protein.
In Vivo	<b>Animal experiment</b>	
	Animal models:	SCID mice bearing human MM RPMI8226 xenograft
	Dosage form:	intraperitoneal injection, 0.5mg/kg twice weekly or 1.0mg/kg once weekly for 2 weeks.
	Applications:	In SCID mice bearing human MM RPMI8226 xenograft, Toyocamycin alone showed robust anti-tumor activity resulting in smaller tumor volumes compared with controls on day 15. The combination treatment of BTZ with toyocamycin showed a trend toward enhancing anti-tumor activity.
	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]. Ri M, Tashiro E, Oikawa D, et al, Identification of Toyocamycin, an agent cytotoxic for multiple myeloma cells, as a potent inhibitor of ER stress-induced XBP1 mRNA splicing. Blood Cancer J. 2012 Jul;2(7):e79.

## 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.

# APEX BIO Technology

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