

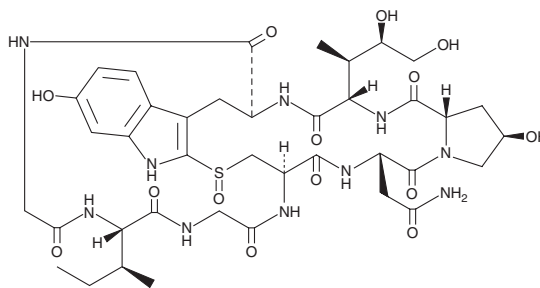
# PRODUCT INFORMATION



## $\alpha$ -Amanitin

Item No. 17898

CAS Registry No.: 23109-05-9  
MF:  $C_{39}H_{54}N_{10}O_{14}S$   
FW: 919.0  
Purity:  $\geq 90\%$   
UV/Vis.:  $\lambda_{max}$ : 303 nm  
Supplied as: A crystalline solid  
Storage:  $-20^{\circ}C$   
Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

$\alpha$ -Amanitin is supplied as a crystalline solid. A stock solution may be made by dissolving the  $\alpha$ -amanitin in water. The solubility of  $\alpha$ -amanitin in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

$\alpha$ -Amanitin is a cyclic peptide found in several species of the *Amanita* genus as well as other poisonous fungi.<sup>1</sup> At 1, 10, and 50  $\mu\text{g/ml}$ , respectively,  $\alpha$ -amanitin inhibits RNA polymerase II, III, and IV, preventing translocation of the enzymes on DNA, which significantly slows the rate of transcription.<sup>2,3</sup> RNA polymerase I is insensitive to its effects. This toxin is used in molecular biology to distinguish among types of RNA polymerase in a sample and to arrest RNA synthesis in transcription studies.<sup>2</sup>

### References

1. Hallen, H.E., Luo, H., Scott-Craig, J.S., *et al.* Gene family encoding the major toxins of lethal *Amanita* mushrooms. *Proc. Natl. Acad. Sci. USA* **104(48)**, 19097-19101 (2007).
2. Gu, W., Powell, W., Mote, J., Jr., *et al.* Nascent RNA cleavage by arrested RNA polymerase II does not require upstream translocation of the elongation complex on DNA. *J. Biol. Chem.* **268(34)**, 25604-25616 (1993).
3. Tipper, D.J. Inhibition of yeast ribonucleic acid polymerases by thiolutin. *J. Bacteriol.* **116(1)**, 245-256 (1973).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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