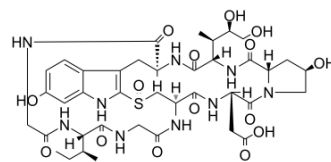


β-Amanitin

Cat. No.:	HY-125586
CAS No.:	21150-22-1
Molecular Formula:	C ₃₉ H ₅₃ N ₉ O ₁₅ S
Molecular Weight:	919.95
Target:	DNA/RNA Synthesis; ADC Cytotoxin
Pathway:	Cell Cycle/DNA Damage; Antibody-drug Conjugate/ADC Related
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	β-Amanitin is a cyclic peptide toxin in the poisonous Amanita phalloides mushroom. β-Amanitin inhibits eukaryotic RNA polymerase II and III. β-Amanitin inhibits protein synthesis. β-Amanitin can be used as a cytotoxic component of antibody-drug conjugates (ADCs) ^{[1][2]} .								
IC₅₀ & Target	Traditional Cytotoxic Agents								
In Vitro	<p>β-Amanitin (0.01-100 μg/mL; 36 hours) shows toxicity in MCF-7 cells, and the rates of cell viability are calculated as 52%, 62%, 84%, 86%, and 91% at concentrations of 100, 10, 1, 0.1, and 0.01 μg/mL, respectively^[2].</p> <p>β-Amanitin shows a great inhibition of protein synthesis at both concentrations (10 μg/mL and 1 μg/mL) in MCF-7 cells for 24 hours^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[2]</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Cell Line:</td> <td>MCF-7 cells</td> </tr> <tr> <td>Concentration:</td> <td>0.01, 0.1, 1, 10, 100 μg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>36 hours</td> </tr> <tr> <td>Result:</td> <td>Showed toxicity in MCF-7 cells.</td> </tr> </table>	Cell Line:	MCF-7 cells	Concentration:	0.01, 0.1, 1, 10, 100 μg/mL	Incubation Time:	36 hours	Result:	Showed toxicity in MCF-7 cells.
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Concentration:	0.01, 0.1, 1, 10, 100 μg/mL								
Incubation Time:	36 hours								
Result:	Showed toxicity in MCF-7 cells.								

REFERENCES

- [1]. Kaya E, et al. Evaluation and comparison of alpha- and beta-amanitin toxicity on MCF-7 cell line. Turk J Med Sci. 2014;44(5):728-32.
- [2]. Lutz C, et al. Alpha- and Beta-Amanitin Total Synthesis. Angew Chem Int Ed Engl. 2020 Feb 24.

Caution: Product has not been fully validated for medical applications. For research use only.

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