

Zoptarelin doxorubicin

Cat. No.:	HY-16532
CAS No.:	139570-93-7
Molecular Formula:	C ₉₁ H ₁₁₇ N ₁₉ O ₂₆
Molecular Weight:	1893.01
Target:	GnRH Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Zoptarelin doxorubicin (AEZS-108; AN-152) is a hybrid anticancer agent, containing Zoptarelin and Doxorubicin. Zoptarelin doxorubicin has been used to research targeting tumors expressing LHRH receptors. Zoptarelin doxorubicin abolishes tumor progression and induces remarkable apoptosis in vitro ^[1] .																		
IC₅₀ & Target	Apoptosis, LHRH receptors ^[1]																		
In Vitro	<p>Zoptarelin doxorubicin (AN-152) inhibits almost 70 % of glioblastoma cell growth, increases almost 250% apoptosis and causes a greater increase in calcein retention^[1].</p> <p>Zoptarelin doxorubicin (AN-152) up-regulates the tumor suppressor and pro-apoptotic p53, and inhibits the expression of the primordial, neuroectodermal stem cell marker, nestin^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>U-87 MG</td> </tr> <tr> <td>Concentration:</td> <td>100 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 h</td> </tr> <tr> <td>Result:</td> <td>Brought about an almost 70 % inhibition of tumor cell growth.</td> </tr> </table> <p>Apoptosis Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>U-87 MG</td> </tr> <tr> <td>Concentration:</td> <td>100 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 h</td> </tr> <tr> <td>Result:</td> <td>Increased almost 250 % apoptosis.</td> </tr> </table> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>U-87 MG</td> </tr> </table>	Cell Line:	U-87 MG	Concentration:	100 nM	Incubation Time:	48 h	Result:	Brought about an almost 70 % inhibition of tumor cell growth.	Cell Line:	U-87 MG	Concentration:	100 nM	Incubation Time:	48 h	Result:	Increased almost 250 % apoptosis.	Cell Line:	U-87 MG
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	Concentration:	100 nM
	Incubation Time:	24 h
	Result:	Did not induce any down-regulation of LHRH-R. Inhibited the expression of the primordial, neuroectodermal stem cell marker, nestin. Up-regulated the tumor suppressor and pro-apoptotic p53.
In Vivo	Zoptarelin doxorubicin (AN-152) inhibits tumor growth in glioblastoma xenograft mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Female nude mice (injected in the flanks with 1×10^6 glioblastoma U-87 MG cells) ^[1]
	Dosage:	413 nM/20g
	Administration:	i.v.; once weekly; for 6 weeks
	Result:	Significantly inhibited tumor growth compared to the control.

REFERENCES

[1]. Jaszberenyi M, et al. Inhibition of U-87 MG glioblastoma by AN-152 (AEZS-108), a targeted cytotoxic analog of luteinizing hormone-releasing hormone. *Oncotarget*. 2013 Mar;4(3):422-32.

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

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