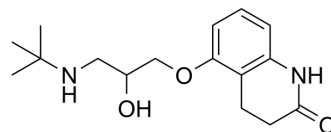


Carteolol

Cat. No.:	HY-17495
CAS No.:	51781-06-7
Molecular Formula:	C ₁₆ H ₂₄ N ₂ O ₃
Molecular Weight:	292.37
Target:	Adrenergic Receptor; Caspase; Bcl-2 Family
Pathway:	GPCR/G Protein; Neuronal Signaling; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Carteolol is a non-selective β -adrenoceptor antagonist. Carteolol induces apoptosis via a caspase activated and mitochondrial-dependent pathway. Carteolol can be used for glaucoma research ^[1] .	
In Vitro	Carteolol (0-2%; 0-28 hours; HCECs) has cytotoxicity and decreases cell viability in a dose- and time-dependent manner ^[1] . Carteolol (0.25%; 4-12 hours; HCECs) induces apoptosis and necroptotic protein expression in HCECs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Cell Viability Assay ^[1]	
	Cell Line:	HCECs
	Concentration:	0.00390625-2%
	Incubation Time:	0, 2, 4, 8, 16, 20,24 and 28 hours
	Result:	Decreased cell viability with the concentrations above 0.0015625% in a dose- and time-dependent manner.
	Western Blot Analysis ^[1]	
	Cell Line:	HCECs
	Concentration:	0.25%
	Incubation Time:	4, 8 and 12 hours
Result:	Dampened expression of the anti-apoptotic protein Bcl-2 and Bcl-xL, enhanced expression of the pro-apoptotic proteins Bax and Bad, and mitochondrial-released pro-apoptotic proteins Cyt.c and AIF.	
Cell Cycle Analysis ^[1]		
Cell Line:	HCECs	
Concentration:	0.25%	
Incubation Time:	4, 8 and 12 hours	

Result:

Increased the number of G1 phase of the cell cycle, whereas decreased S phase.

CUSTOMER VALIDATION

- J Pharmaceut Biomed. 2020, 113870.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Su W, et, al. Dose- and Time-Dependent Cytotoxicity of Carteolol in Corneal Endothelial Cells and the Underlying Mechanisms. Front Pharmacol. 2020 Mar 6;11:202.

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

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