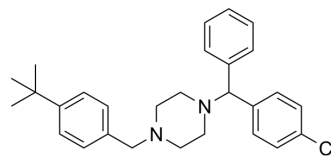


Bucazine

Cat. No.:	HY-A0128
CAS No.:	82-95-1
Molecular Formula:	C ₂₈ H ₃₃ ClN ₂
Molecular Weight:	433.03
Target:	Histamine Receptor
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Bucazine is an orally active antihistamine antiallergic compound. Bucazine is a potent teratogen in the rat and shows anti-tumor activity ^{[1][2][3]} .																						
In Vitro	<p>Bucazine (0.1-100 μM; 72 h) inhibits growth of MCF-7 cells^[2].</p> <p>Bucazine (9.625-77 μM; 72 h) arrests the cell cycle in the G1 phase in a dose-dependent manner^[2].</p> <p>Bucazine (0-75 μM; 72 h) decreases TCTP (translationally controlled tumor protein) and cell cycle regulatory proteins expression in MCF-7 cells, increases pro-apoptotic MCL-1S expression^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay^[2]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>MCF-7 cells</td> </tr> <tr> <td>Concentration:</td> <td>0-100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 hours</td> </tr> <tr> <td>Result:</td> <td>Showed considerable growth inhibition (IC₅₀=19.18 μM).</td> </tr> </table> <p>Cell Cycle Analysis^[2]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>MCF-7 cells</td> </tr> <tr> <td>Concentration:</td> <td>9.625, 19.25, 38.5, and 77 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 hours</td> </tr> <tr> <td>Result:</td> <td>Increased the percentages of cells in the G1 phase to 73% at 77 μM.</td> </tr> </table> <p>Western Blot Analysis^[2]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>MCF-7 cells</td> </tr> <tr> <td>Concentration:</td> <td>0-75 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 hours</td> </tr> </table>	Cell Line:	MCF-7 cells	Concentration:	0-100 μM	Incubation Time:	72 hours	Result:	Showed considerable growth inhibition (IC ₅₀ =19.18 μM).	Cell Line:	MCF-7 cells	Concentration:	9.625, 19.25, 38.5, and 77 μM	Incubation Time:	72 hours	Result:	Increased the percentages of cells in the G1 phase to 73% at 77 μM.	Cell Line:	MCF-7 cells	Concentration:	0-75 μM	Incubation Time:	72 hours
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In Vivo	<p>Buclizine dihydrochloride (30-200 mg/kg; tenth to fifteenth and twelfth to fifteenth days of gestation) shows potent teratogens in the rat^[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Eighty-seven mature female rats weighing 240\pm20 grams^[3]</td> </tr> <tr> <td>Dosage:</td> <td>30, 40, 60, 100, and 200 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>30-200 mg/kg; tenth to fifteenth and twelfth to fifteenth days of gestation</td> </tr> <tr> <td>Result:</td> <td>Resulted in malformations in 100% of the young at a dose level of 60-100 mg/kg.</td> </tr> </table>	Animal Model:	Eighty-seven mature female rats weighing 240 \pm 20 grams ^[3]	Dosage:	30, 40, 60, 100, and 200 mg/kg	Administration:	30-200 mg/kg; tenth to fifteenth and twelfth to fifteenth days of gestation	Result:	Resulted in malformations in 100% of the young at a dose level of 60-100 mg/kg.
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REFERENCES

- [1]. Gamal A E Mostafa, et al. Buclizine. Profiles Drug Subst Excip Relat Methodol. 2011;36:1-33.
- [2]. Ean-Jeong Seo, et al. Interaction of antihistaminic drugs with human translationally controlled tumor protein (TCTP) as novel approach for differentiation therapy. Oncotarget. 2016 Mar 29;7(13):16818-39.
- [3]. C T King, et al. Teratogenic effect of buclizine and hydroxyzine in the rat and chlorcyclizine in the mouse. Am J Obstet Gynecol. 1966 May 1;95(1):109-11.

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

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