**Azelastine**

**Cat. No.:** HY-B0462A  
**CAS No.:** 58581-89-8  
**Molecular Formula:** C₂₂H₂₄ClN₃O  
**Molecular Weight:** 381.9  
**Target:** Histamine Receptor; SARS-CoV  
**Pathway:** GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Anti-infection  
**Storage:** Please store the product under the recommended conditions in the Certificate of Analysis.

**BIOLOGICAL ACTIVITY**

**Description**  
Azelastine, an antihistamine, is a potent and selective histamine 1 (H₁) antagonist. Azelastine can be used for the research of allergic rhinitis, asthma, diabetic hyperlipidemic and SARS-CoV-2[1][2][3][4].

**IC₅₀ & Target**  
H₁ Receptor

**In Vitro**  
Azelastine can significantly inhibit HNEpC proliferation, and therefore, be helpful in against airway remodeling[5]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**Cell Proliferation Assay[5]**

<table>
<thead>
<tr>
<th>Cell Line:</th>
<th>Human nasal epithelial cells (HNEpC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration:</td>
<td>100 μM, 400 μM</td>
</tr>
<tr>
<td>Incubation Time:</td>
<td>21 days</td>
</tr>
<tr>
<td>Result:</td>
<td>Inhibited HNEpC growth.</td>
</tr>
</tbody>
</table>

**Western Blot Analysis[5]**

<table>
<thead>
<tr>
<th>Cell Line:</th>
<th>Human nasal epithelial cells (HNEpC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration:</td>
<td>100 μM</td>
</tr>
<tr>
<td>Incubation Time:</td>
<td>7 days</td>
</tr>
<tr>
<td>Result:</td>
<td>Significantly up-regulated the H1R, M1R and M3R levels.</td>
</tr>
</tbody>
</table>

**In Vivo**  
Azelastine (4 mg/kg; p.o.; daily; for 8 weeks) significantly reduces blood glucose, HbA1c and serum alkaline phosphatase (ALP), osteocalcin and downregulates apolipoprotein B in diabetic hyperlipidemic rats model[2]. Azelastine (4 mg/kg; p.o.; daily; for 8 weeks) improves the lipid profile (LDL-c decrease and HDL-c increase) in diabetic hyperlipidemic rats model[2]. Azelastine (4 mg/kg; p.o.; daily; for 8 weeks) attenuates calcium deposition and aortic calcification in diabetic hyperlipidemic rats model[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Model: Male albino Wistar rats (150-170 g), diabetic hyperlipidemic rats model

Dosage: 4 mg/kg

Administration: Oral administration, daily, for 8 weeks

Result: Ameliorated aortic calcification and increased apolipoprotein A expression along with a decline in apolipoprotein B.

REFERENCES


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

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