Calmidazolium chloride

Cat. No.: HY-103319
CAS No.: 57265-65-3
Molecular Formula: C₃₁H₂₃Cl₇N₂O
Molecular Weight: 687.7
Target: CaMK; Autophagy
Pathway: Neuronal Signaling; Autophagy
Storage: Powder -20°C 3 years
In solvent -80°C 6 months
-20°C 1 month

BIOLOGICAL ACTIVITY

Description
Calmidazolium chloride (R 24571) is a calmodulin (CaMK) antagonist, antagonizing CaM-dependent phosphodiesterase and calmodulin-induced activation of erythrocyte Ca²⁺-transporting ATPase with IC₅₀ values of 0.15 and 0.35 μM, respectively[1]. Also in anti-cancer research[2]. Calmidazolium binds to CaMK with a Kₐ of 3 nM.

IC₅₀ & Target
Kd: 3 nM (Calmodulin)[3]

In Vitro
Calmidazolium chloride is widely used as a calmodulin (CaM) antagonist, but is also known to induce apoptosis in certain cancer cell lines. Calmidazolium chloride (3, 5, 7, 10 μM, 30 minutes-24 hours) inhibits growth of mouse F9 ECCs[2].

Cell Viability Assay[2]

<table>
<thead>
<tr>
<th>Cell Line</th>
<th>Mouse F9 ECCs</th>
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</thead>
<tbody>
<tr>
<td>Concentration</td>
<td>3, 5, 7, 10 μM</td>
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<tr>
<td>Incubation Time</td>
<td>30 minutes-24 hours</td>
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<tr>
<td>Result</td>
<td>The IC₅₀s of Calmidazolium chloride treated F9 ECCs and E14 ESCs are 8.18 μM, and 12.69 μM[2].</td>
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</tbody>
</table>

REFERENCES

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

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