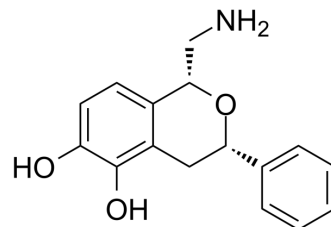


A68930

Cat. No.:	HY-120687
CAS No.:	130465-45-1
Molecular Formula:	C ₁₆ H ₁₇ NO ₃
Molecular Weight:	271.31
Target:	Dopamine Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	A68930, as a dopamine D1 receptor agonist, can be used for the research of bronchiectasis ^[1] .																				
IC₅₀ & Target	D ₁ Receptor																				
In Vitro	<p>A68930 (1 μM; 5-60 minutes; 16HBE14o- or NCI-H292 cells) significantly increases phosphorylation of cAMP response element binding (CREB) protein^[1].</p> <p>A68930 (1 μM; 48 hours; NCI-H292 cells) induces MUC5AC mRNA expression and increases the mRNA data of MUC5AC and MUC5AC protein expression^[1].</p> <p>A68930 (1 μM; 20 minutes; NCI-H292 cells) significantly increases intracellular cAMP levels^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>16HBE14o- or NCI-H292 cells</td> </tr> <tr> <td>Concentration:</td> <td>1 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>5~60 minutes</td> </tr> <tr> <td>Result:</td> <td>Significantly increased phosphorylation of CREB.</td> </tr> </table> <p>RT-PCR^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>NCI-H292 cells</td> </tr> <tr> <td>Concentration:</td> <td>1 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 hours</td> </tr> <tr> <td>Result:</td> <td>Induced MUC5AC mRNA expression.</td> </tr> </table> <p>Immunofluorescence^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>NCI-H292 cells</td> </tr> <tr> <td>Concentration:</td> <td>1 μM</td> </tr> </table>	Cell Line:	16HBE14o- or NCI-H292 cells	Concentration:	1 μM	Incubation Time:	5~60 minutes	Result:	Significantly increased phosphorylation of CREB.	Cell Line:	NCI-H292 cells	Concentration:	1 μM	Incubation Time:	48 hours	Result:	Induced MUC5AC mRNA expression.	Cell Line:	NCI-H292 cells	Concentration:	1 μM
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Cell Line:	NCI-H292 cells																				
Concentration:	1 μM																				

Incubation Time:	48 hours
Result:	The mRNA data of MUC5AC, MUC5AC protein expression were increased.

REFERENCES

[1]. Matsuyama N, et al. The dopamine D1 receptor is expressed and induces CREB phosphorylation and MUC5AC expression in human airway epithelium. *Respir Res.* 2018;19(1):53. Published 2018 Apr 2.

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

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