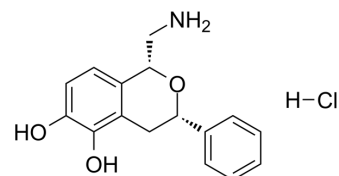


A68930 hydrochloride

| | |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Cat. No.: | HY-103431 |
| CAS No.: | 130465-39-3 |
| Molecular Formula: | C ₁₆ H ₁₈ ClNO ₃ |
| Molecular Weight: | 307.77 |
| Target: | Dopamine Receptor |
| Pathway: | GPCR/G Protein; Neuronal Signaling |
| Storage: | 4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture) |



BIOLOGICAL ACTIVITY

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| Description | A68930 hydrochloride, as a dopamine D1 receptor agonist, can be used for the research of bronchiectasis ^[1] . | | | | | | | | | | | | | | | | | | | | |
| IC₅₀ & Target | D ₁ Receptor | | | | | | | | | | | | | | | | | | | | |
| In Vitro | <p>A68930 hydrochloride (1 μM; 5-60 minutes; 16HBE14o- or NCI-H292 cells) significantly increases phosphorylation of cAMP response element binding (CREB) protein^[1].</p> <p>A68930 hydrochloride (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 hydrochloride (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 |
| 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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|------------------|--------------------------------------------------------------------|
| 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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