# VU590 dihydrochloride

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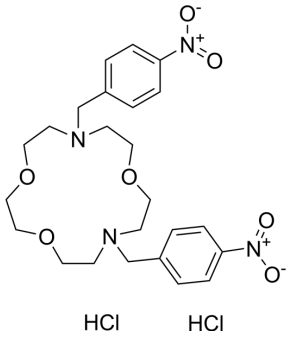
| **Cat. No.:** | HY-110076 |
| **CAS No.:** | 1783987-83-6 |
| **Molecular Formula:** | $C_{24}H_{34}Cl_2N_4O_7$ |
| **Molecular Weight:** | 561.46 |
| **Target:** | Potassium Channel |
| **Pathway:** | Membrane Transporter/Ion Channel |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |




## BIOLOGICAL ACTIVITY

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| **Description** | VU590 dihydrochloride is a potent and moderately selective ROMK (Kir1.1) inhibitor, with an $IC_{50}$ of 290 nM. VU590 also inhibits Kir7.1, with an $IC_{50}$ of 8 μM. VU590 dihydrochloride is not a good probe of ROMK function in the kidney[1][2]. |
| **$IC_{50}$ & Target** | $IC_{50}$: 290 nM (Kir1.1), 8 μM (Kir7.1)[1] |

## REFERENCES

[1]. Bhave G, et al. Development of a selective small-molecule inhibitor of Kir1.1, the renal outer medullary potassium channel. Mol Pharmacol. 2011 Jan;79(1):42-50.

[2]. Kharade SV, et al. Pore Polarity and Charge Determine Differential Block of Kir1.1 and Kir7.1 Potassium Channels by Small-Molecule Inhibitor VU590. Mol Pharmacol. 2017 Sep;92(3):338-346.



Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA