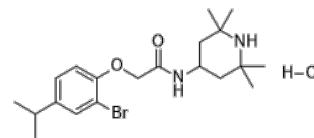


Product Name : VU0134992 hydrochloride
Cat. No. : PC-23611
CAS No. : 1052515-91-9
Molecular Formula : C₂₀H₃₂BrClN₂O₂
Molecular Weight : 447.84
Target : Potassium Channel
Solubility : 10 mM in DMSO



Biological Activity

VU0134992 hydrochloride (VU 0134992) is a potent, selective blocker of the inward rectifier potassium channel Kir4.1 (KCNJ10) with IC₅₀ of 0.97 μM in whole-cell patch clamp electrophysiology assays.

VU0134992 displays 9-fold selectivity for homomeric Kir4.1 over Kir4.1/5.1 concatemeric channels (IC₅₀=9 μM) at -120 mV.

VU0134992 is greater than 30-fold selective for Kir4.1 over Kir1.1, Kir2.1, and Kir2.2, is weakly active toward Kir2.3, Kir6.2/SUR1, and Kir7.1, and is equally active toward Kir3.1/3.2, Kir3.1/3.4, and Kir4.2 in Tl⁺ flux assays.

VU0134992 causes dose-dependent diuresis, natriuresis, and kaliuresis in rats after oral treatment.

VU0134992 represents the first in vivo-active tool compound for probing the therapeutic potential of Kir4.1 as a novel diuretic target for the treatment of hypertension.

References

Kharade SV, et al. Mol Pharmacol. 2018 Jun 12. pii: mol.118.112359.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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