Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Vernakalant (Hydrochloride)

Catalog No: tcsc0799

Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
748810-28-8

Formula:
$C_{20}H_{32}ClNO_4$

Pathway:
Membrane Transporter/Ion Channel

Target:
Potassium Channel

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
RSD1235 hydrochloride

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Observed Molecular Weight:
385.93

Product Description

Vernakalant hydrochloride is a mixed voltage- and frequency-dependent **Na^+** and atria-preferred **K^+ channel** blocker. **IC_{50}** for block by Vernakalant of wild-type and mutant Kv1.5 channels Fractional block is 13.35±0.93 μM, 0.61±0.03 μM, and 1.63±0.09 μM for **Kv1.5 channel^{wt}**, **Kv1.5 channel^{I508F}**, **Kv1.5 channel^{T479A}**, respectively.

IC50 & Target: IC50: 13.35±0.93 μM (Kv1.5 channel^{wt}), 0.61±0.03 μM (^{I508F}), 1.63±0.09 μM (Kv1.5 channel ^{T479A})[1]

In Vitro: Block of Kv1.5 by Vernakalant Hydrochloride is mediated after channel activation, because Vernakalant causes a relatively rapid onset of block of channel current upon depolarization but little evidence of resting or “tonic” block of the channel. In the presence of 10 μM Vernakalant, rapid block is apparent after channel opening, and a steady-state current level is rapidly reached. The most important effect is the reduction in potency for Vernakalant centered at I502A, which had an IC_{50} of 329±19 μM (n=4-10), compared with a control IC_{50} of 13.4±0.9 μM (n=5-23), which is a 25-fold decrease in potency. V505A, I508A, T480A, and C500A showed lesser reductions in potency on Kv1.5, of between 3- and 4-fold. I508Y in our experiments increased the IC_{50} for Vernakalant on Kv1.5 to 24.7 μM, again similar to the reported value for hERG[1].