Web: www.taiclone.com
Tel: +886-2-2735-9682
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Clemizole (hydrochloride)

Catalog No: tcsc1489

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1163-36-6

Formula:
$C_{19}H_{21}Cl_2N_3$

Pathway:
Metabolic Enzyme/Protease;Immunology/Inflammation;GPCR/G Protein;Anti-infection

Target:
HCV Protease;Histamine Receptor;Histamine Receptor;HCV

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 3.7 mg/mL (10.21 mM)

Observed Molecular Weight:
362.3

Product Description

Clemizole hydrochloride is an **H1 histamine receptor** antagonist, is found to substantially inhibit **HCV** replication. The **IC_{50}** of

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Clemizole for RNA binding by **NS4B** is 24±1 nM, whereas its **EC_{50}** for viral replication is 8 μM.

IC50 & Target: IC50: 24 nM (NS4B)[1]
H1 histamine receptor[1]

In Vitro: Clemizole hydrochloride is found to inhibit HCV RNA replication in cell culture that is mediated by its suppression of NS4B's RNA binding, with little toxicity for the host cell. The EC_{50} of Clemizole on the W55R mutant J6/JFH RNA is ~18 μM (2.25 times the EC_{50} of the wild-type RNA)[1]. Clemizole is a novel inhibitor of TRPC5 channels. Clemizole efficiently blocks TRPC5 currents and Ca^{2+} entry in the low micromolar range (IC_{50}=1.0-1.3 μM). Clemizole exhibits a six-fold selectivity for TRPC5 over TRPC4β (IC_{50}=6.4 μM), the closest structural relative of TRPC5, and an almost 10-fold selectivity over TRPC3 (IC_{50}=9.1 μM) and TRPC6 (IC_{50}=11.3 μM). Clemizole hydrochloride as a novel blocker of TRPC5 with a half-maximal inhibitory concentration of 1.1 μM. The concentration-response curves confirmed a concentration-dependent block of TRPC5 by Clemizole and revealed an apparent IC_{50} of 1.1±0.04 μM[2]
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In Vivo: Clemizole hydrochloride has an unexpectedly short plasma half-life (measured at 0.15 hours); it is very rapidly biotransformed into a glucuronide (M14) and a dealkylated metabolite (M12) and into a variety of lesser metabolites in C57BL/6J mice [3].