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

TAK-779

Catalog No: tcsc2026

Available Sizes

Size: 5mg

Size: 10mg

Specifications

CAS No:
229005-80-5

Formula:
$C_{33}H_{39}ClN_2O_2$

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

Target:
CCR;CCR;CXCR;CXCR;HIV

Purity / Grade:
>98%

Solubility:
H2O : 16.66 mg/mL (31.37 mM; Need ultrasonic and warming); DMSO : ≥ 25 mg/mL (47.07 mM)

Alternative Names:
Takeda 779

Observed Molecular Weight:
531.13

Product Description

TAK-779 is a potent and selective nonpeptide antagonist of **CCR5** and **CXCR3**, with a $\mathbf{K_i}$ of 1.1 nM for CCR5, and effectively and selectively inhibits **R5 HIV-1**, with $\mathbf{EC_{50}}$ and $\mathbf{EC_{90}}$ of 1.2 nM and 5.7 nM, respectively, in MAGI-CCR5 cells.

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

IC50 & Target: Ki: 1.1 nM (CCR5)[1]

EC50: 1.2 nM (R5 HIV-1, in MAGI-CCR5 cells)[1]

EC90: 5.7 nM (R5 HIV-1, in MAGI-CCR5 cells)[1]

CXCR[2]

In Vitro: TAK-779 is a potent and selective nonpeptide antagonist of CCR5, with a K_i of 1.1 nM, and effectively and selectively inhibits R5 HIV-1, with EC_{50} and EC_{90} of 1.2 nM and 5.7 nM, respectively, in MAGI-CCR5 cells. TAK-779 less potently blocks the binding of [^{125}I]-monocyte chemotactic protein 1 to CCR2b in CHO/CCR2b cells, with an IC_{50} for CCR2b of 27 nM. TAK-779 also completely inhibits the binding of [^{125}I]-RANTES to CHO/CCR5 cells with an IC_{50} of 1.4 nM. TAK-779 (20 nM) selectively inhibits CCR5-mediated Ca^{2+}-signaling. In addition, TAK-779 shows no inhibition on X4 HIV-1 strains[1]. TAK-779 is an antagonist of CXCR3, and inhibits the migration of T cells but not T cell proliferation[2].

In Vivo: TAK-779 (10 mg/kg per day, s.c.) significantly prolongs the allograft survival of the rat intestinal transplantation model. TAK-779 also decreases the number of $CD4^+$ as well as $CD8^+$ T cells in spleen, blood and recipient mesenteric lymph nodes (MLN)[2]. TAK-779 (150 μg per mouse, s.c.) supppresses the development of experimental autoimmune encephalomyelitis (EAE) in myelin oligodendrocyte glycoprotein (MOG)-immunized C57BL/6 mice. TAK-779 decreases the infiltration of CXCR3 and CCR5 bearing leukocytes into the spinal cord. TAK-779 does not alter myelin oligodendrocyte glycoprotein (MOG)-specific immune responses or affect the potential of MOG-specific T cells to transfer experimental autoimmune encephalomyelitis (EAE)[3].