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

Y15

Catalog No: tcsc3465

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
4506-66-5

Formula:
$C_6H_{14}Cl_4N_4$

Pathway:
Protein Tyrosine Kinase/RTK

Target:
FAK

Purity / Grade:
>98%

Solubility:
H2O : 59 mg/mL (207.74 mM; Need ultrasonic and warming)

Alternative Names:
FAK inhibitor Y15;FAK Inhibitor 14

Observed Molecular Weight:
284.01

Product Description

Y15 is a direct and specific inhibitor of **FAK**

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auto-phosphorylation.

IC50 & Target: FAK[1]

In Vitro: Y15 directly blocks autophosphorylation activity of FAK. Y15 inhibits Y397 phosphorylation of FAK starting at 0.1 μM in Panc-1 cells. At a dose of 100 μM, Y15 has the same or better inhibition as TAE226. Of note, total FAK is downregulated at higher doses of Y15. Y15 also blocks phosphorylation of the FAK downstream substrate, paxillin. Total paxillin is decreased at higher doses similar to FAK. Thus, Y15 inhibits FAK phosphorylation in a dose-dependent manner[1]. MTS assay is completed using a range of Y15 doses on all cell lines (TT, K1, BCPAP, and TPC1, respectively).Y15 inhibited cell viability in a dose-dependent manner across all thyroid cell lines evaluated. IC_{50} is 2.05, 5.74, 9.99, and 17.54 μM for TT, TPC1, BCPAP, and K1, respectively[2].

In Vivo: Nude mice bearing Panc si-ctrl xenografts are treated with TAE226, a dual FAK and IGF-1R tyrosine kinase inhibitor, to provide a reference for the antitumor effect of dual inhibition of FAK and IGF-1R. Without drug treatment, Panc si5-IGF-1R xenografts grew slower than Panc si-ctrl xenografts (Panc si5-IGF-1R/PBS vs. Panc si-ctrl/PBS), suggesting moderate tumor suppression by inhibiting the IGF-1R pathway only. Further inhibition of FAK activity by Y15 treatment suppresses the growth of Panc si5-IGF-1R xenografts more drastically (Panc si5-IGF-1R/PBS vs. Panc si5-IGF-1R/Y15). A similar antitumor effect is seen in Panc si-ctrl xenografts treated with TAE226 (Panc si5-IGF-1R/Y15 vs. Panc si-ctrl/TAE226). Mice demonstrates normal grooming and eating habits throughout the experiment[3].