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

NVP-AEW541

Catalog No: tcsc0448

Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
475489-16-8

Formula:
$C_{27}H_{29}N_5O$

Pathway:
Protein Tyrosine Kinase/RTK;Protein Tyrosine Kinase/RTK

Target:
IGF-1R;Insulin Receptor

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 51 mg/mL (116.03 mM)

Alternative Names:
AEW541

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Observed Molecular Weight:
439.55

Product Description

NVP-AEW541 is a potent inhibitor of **IGF-1R** with **IC_{50}** of 0.15 μM, also inhibits **InsR**, with **IC_{50}** of 0.14 μM.

IC50 & Target: IC50: 0.15 ±0.036 μM (IGF-IR), 0.14±0.039 μM (InsR), 0.42±0.11 μM (Flt-3), 2±0.61 μM (PDGFR), 2.4±0.38 μM (c-Src), 3.3±1.4 μM (c-Kit)[1]

In Vitro: NVP-AEW541 inhibits the in vitro kinase activity of the recombinant IGF-IR kinase domain with an IC50 value of 0.15 μM and to be equipotent against the recombinant InsR kinase domain. NVP-AEW541 is confirmed active toward the IGF-IR kinase (IC_{50} =86 nM) and shown to be selective at the cellular level. Indeed, NVP-AEW541 is found to be 27-fold more potent toward the native IGF-IR, as compared to the structurally related native InsR (IC_{50}=2.3 μM). NVP-AEW541 suppresses the IGF-I-mediated survival, soft agar and proliferation of MCF-7 cells with IC_{50} of 0.162 μM, 0.105 μM and 1.64 μM, respectively[1].

In Vivo: Oral administration of NVP-AEW541 (20, 30, or 50 mg/kg) results in abrogation of basal and IGF-I-induced receptor, and PKB and MAPK phosphorylation in the NWT-21 tumor xenograft[1]. NVP-AEW541 is administered by oral gavage [50 mg/kg in 0.2 mL of 25 mM L-(+)-tartaric acid] twice a day for 14 consecutive days. The control group is similarly treated with 0.2 mL carrier [25 mM L-(+)-tartaric acid] twice a day. Tumor volume and animal weight are measured thrice a week till the end of the treatment. At that time, animals are sacrificed and tumors are collected and formalin fixed for histologic and immunohistochemical analyses. In both cases, NVP-AEW541 treatment causes tumor shrinkage that reached the statistical significance (P=0.0156 and P=0.0111 for HTLA-230 and SK-N-BE2c, respectively)[2].