

# 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 :  $\geq 51$  mg/mL (116.03 mM)

**Alternative Names:**

AEW541

### Observed Molecular Weight:

439.55

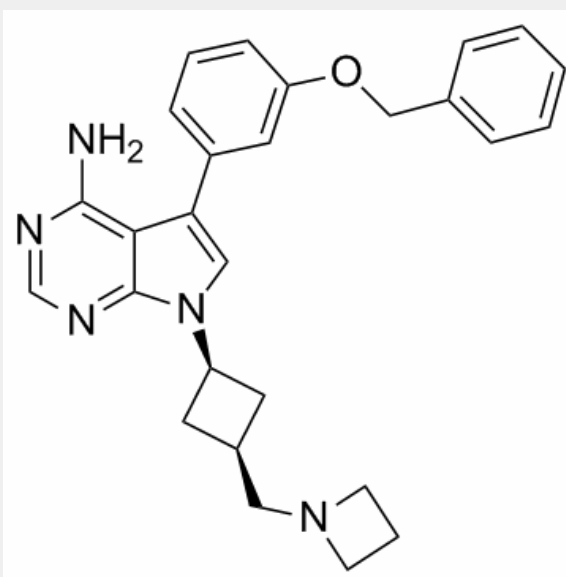
### Product Description

NVP-AEW541 is a potent inhibitor of **IGF-1R** with **IC<sub>50</sub>** of 0.15  $\mu$ M, also inhibits **InsR**, with **IC<sub>50</sub>** of 0.14  $\mu$ M.

IC50 & Target: IC50: 0.15  $\pm$  0.036  $\mu$ M (IGF-IR), 0.14 $\pm$ 0.039  $\mu$ M (InsR), 0.42 $\pm$ 0.11  $\mu$ M (Flt-3), 2 $\pm$ 0.61  $\mu$ M (PDGFR), 2.4 $\pm$ 0.38  $\mu$ M (c-Src), 3.3 $\pm$ 1.4  $\mu$ M (c-Kit)<sup>[1]</sup>

**In Vitro:** NVP-AEW541 inhibits the in vitro kinase activity of the recombinant IGF-IR kinase domain with an IC50 value of 0.15  $\mu$ M and to be equipotent against the recombinant InsR kinase domain. NVP-AEW541 is confirmed active toward the IGF-IR kinase (IC<sub>50</sub> =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<sub>50</sub>=2.3  $\mu$ M). NVP-AEW541 suppresses the IGF-I-mediated survival, soft agar and proliferation of MCF-7 cells with IC<sub>50</sub> of 0.162  $\mu$ M, 0.105  $\mu$ M and 1.64  $\mu$ M, respectively<sup>[1]</sup>.

**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<sup>[1]</sup>. 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)<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!