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

# Allitinib

## Catalog No: tcsc0983

### Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

### Specifications

**CAS No:**
897383-62-9

**Formula:**
$C_{24}H_{18}ClFN_4O_2$

**Pathway:**
JAK/STAT Signaling;Protein Tyrosine Kinase/RTK

**Target:**
EGFR;EGFR

**Purity / Grade:**
>98%

**Solubility:**
10 mM in DMSO

**Alternative Names:**
AST-1306;ALS 1306

**Observed Molecular Weight:**
448.88

## Product Description

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Allitinib (AST1306) is a selective, irreversible **EGFR** and **ErbB2** inhibitor with **$IC_{50}$**s of 0.5 and 3 nM, respectively.

IC50 & Target: IC50: 0.5 nM (EGFR), 3 nM (ErbB2), 12 nM ($EGFR^{L858R/T790M}$)[1]

***In Vitro:*** Allitinib (AST1306) induces a significant, concentration-dependent inhibition of the growth of HIH3T3-EGFR T790M/L858R cells. In addition, Allitinib (AST1306) effectively inhibits EGFR phosphorylation in HIH3T3-EGFR T790M/L858R cells. Allitinib (AST1306) inhibits the growth of NCI-H1975 cells that harbor the EGFR T790M/L858R mutation in a concentration-dependent manner, and blocks phosphorylation of EGFR and downstream pathways as well. Allitinib (AST1306) inhibits the phosphorylation of EGFR and ErbB2, and downstream signaling in human cancer cells. Allitinib (AST1306) inhibits the proliferation of human cancer cells, with ErbB2-overexpressing cells exhibiting more sensitivity[1].

***In Vivo:*** Allitinib (AST1306) potently suppresses tumor growth in ErbB2-overexpressing adenocarcinoma xenograft and FVB-2/Nneu transgenic breast cancer mouse models, but weakly inhibits the growth of EGFR-overexpressing tumor xenografts. Tumor growth inhibition induced by a single dose of Allitinib (AST1306) in the SK-OV-3 xenograft model is accompanied by a rapid (within 2 h) and sustained (≥24 h) inhibition of both EGFR and ErbB2, consistent with an irreversible inhibition mechanism[1].