

Product Data Sheet

Product Name: AC710
Cat. No.: GC18167

Chemical Properties

Cas. No. 1351522-04-7

Chemical Name N-(4-(3-(5-(tert-butyl)isoxazol-3-yl)ureido)phenyl)-5-((1-ethyl-2,2,6,6-tetramethylpiperidin-4-yl)oxy)picolinamide

SMILES O=C(NC1=CC=C(NC(NC2=NOC(C(C)(C)C)=C2)=O)C=C1)C3=NC=C(OC4CC(C)(C)N(CC)C(C)(C)C4)C=C3

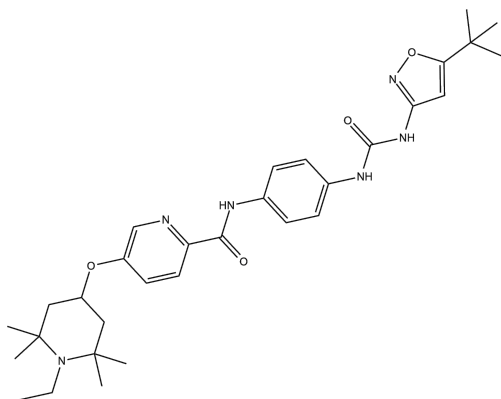
Formula $C_{31}H_{42}N_6O_4$ M.Wt 562.7

Solubility DMF:10 mg/ml; DMSO:14 mg/mL (24.88 mM; Need ultrasonic and warming) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Protocol

Caution: Product has not been fully validated for medical applications. For research use only.

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Animal experiment: Mice: The antitumor efficacy of AC710 is assessed in a subcutaneous flank-tumor xenograft model in athymic nude mice using the MV4-11 cell line. AC710 is dosed at 0.3, 3, and 30 mg/kg for 2 weeks. Tumor growth and body weight is monitored[1].

References:

[1]. Liu G, et al. Discovery of AC710, a Globally Selective Inhibitor of Platelet-Derived Growth Factor Receptor-Family Kinases. ACS Med Chem Lett. 2012 Sep 24;3(12):997-1002.

Background

AC710 is a potent, orally active, and selective platelet-derived growth factor receptor-family kinase inhibitor with potential anticancer activity. Its IC₅₀ values are 1.2, 2, 7.7 and 10.5 nM for KIT, FLT3, PDGFR β and CSF1R respectively; K_d = 1.3 nM for PDGFR α . AC710 causes tumor regression of leukemia cell xenografts in mice. AC710 also reduces joint swelling and inflammation in a mouse model of collagen-induced arthritis. AC710 is now a preclinical development candidate.

REFERENCES:

Liu * $\hat{+}$, Brian T. Campbell $\hat{+}$, Mark W. Holladay $\hat{+}$, Julia M. Ford Pulido $\hat{+}$, Helen Hua $\hat{+}$, Dana Gitnick, Michael F. Gardner, Joyce James, Mike A. Breider, Daniel Brigham $\hat{+}$, Barbara Belli $\hat{+}$, Robert C. Armstrong $\hat{+}$, and Daniel K. Treiber. Discovery of AC710, a Globally Selective Inhibitor of Platelet-Derived Growth Factor Receptor-Family Kinases. ACS Med. Chem. Lett., 2012, 3 (12), pp 997 $\hat{+}$ –1002

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