

N-(4-(3-chloro-4-fluorophenylamino)-7-(3-methyl-3-(4-methylpiperazin-1-yl)but-1-ynyl)quinazolin-6-yl)acrylamide

CAS Registry No.: 451492-95-8

Smiles String:

CC(C)(C#Cc1cc2c(cc1NC(=O)C=C)c(ncn2)Nc3ccc(c(c3)Cl)F)N4CCN(CC4)C

Molecular Weight: 507

Molecular Formula: C₂₇H₂₈ClFN₆O

Lot Number: Refer to vial

¹H-NMR: Available on request

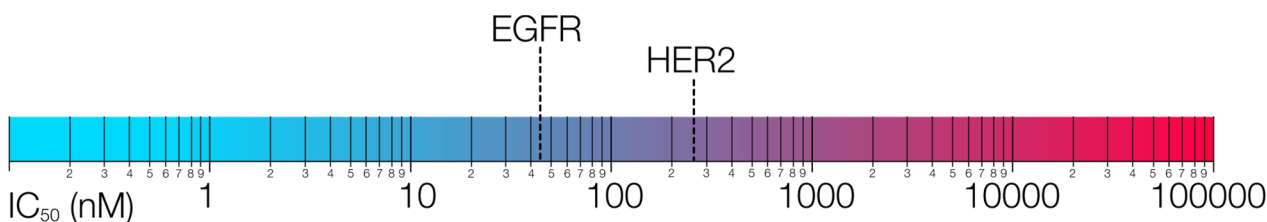
HPLC (Purity): > 95.0% @ 254 nm

ES-MS: Available on request

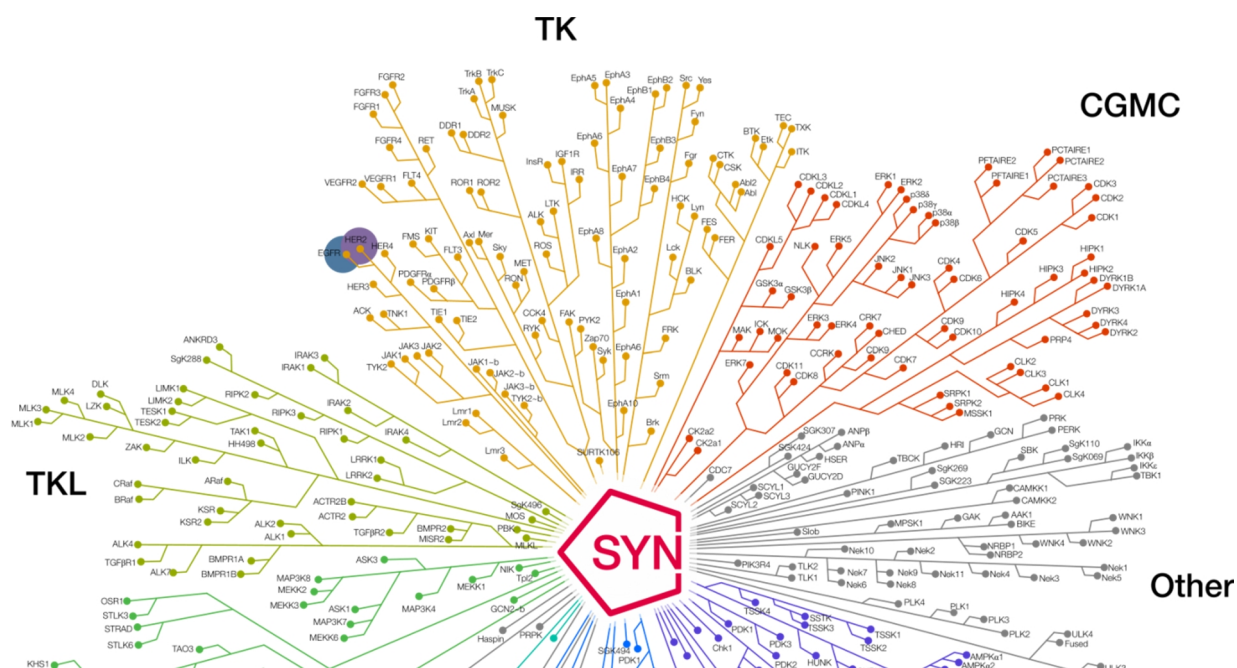
Description:

AV-412 is a potent dual inhibitor of EGFR and ErbB2 tyrosine kinases, including the mutant EGFR (L858R, T790M), which is clinically resistant to the EGFR-specific kinase inhibitors erlotinib and gefitinib. In enzyme assays the compound inhibited the EGFR variants and ErbB2 in the nanomolar range with over 100-fold selectivity compared with other kinases, apart from ABL and FLT1, which were both moderately sensitive to the compound. In cells, AV-412 inhibited autophosphorylation of EGFR and ErbB2 with IC₅₀ of 43 and 282 nM, respectively. It also inhibited epidermal growth factor (EGF)-dependent cell proliferation with an IC₅₀ of 100 nM. Moreover, AV-412 abrogated EGFR signaling in the gefitinib-resistant H1975 cell line, which harbors a double mutation of L858R and T790M in EGFR. In animal studies using cancer xenograft models, AV-412 (30 mg/kg) demonstrated complete inhibition of tumor growth of the A431 and BT-474 cell lines, which overexpress EGFR and ErbB2, respectively. {PMID 17888033}.

Biological Activity



Kinome Mapping



Shipping and Storage Temperature

Shipping:

Ambient

Storage:

2 years -20C, Powder 1 month, -4C in DMSO, More than one month -80C in DMSO

Solubility

DMSO 112mg/mL, Ethanol 4mg/mL

Preparing Stock Solutions

Stock Solution (1ml DMSO)	1mM	10mM	20mM	50mM
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Mass(mg)	0.5071	5.0710	10.1420	25.3550
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References

1. Suzuki T, Fujii A, Ohya J, Amano Y, Kitano Y, Abe D, Nakamura H. Pharmacological characterization of MP-412 (AV-412), a dual epidermal growth factor receptor and ErbB2 tyrosine kinase inhibitor. *Cancer Sci.* 2007 Dec;98(12):1977-84. Epub 2007 Sep 18.

Ordering Information

To order more of this or any other SYNkinase compound, go to synkinase.com, Call us Toll Free (US Only) at 1- 877-854-6273 or email orders@synkinase.com.

Product Datasheet (Rev. 1.1)