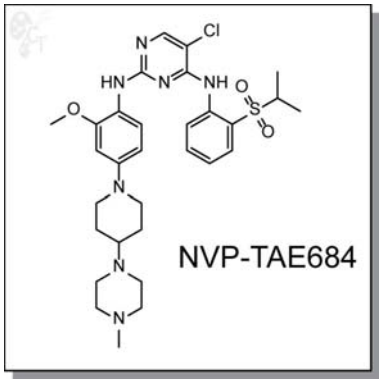
Product Specification Sheet

Product Name: NVP-TAE684

Catalog Number: C6823



Technical information:

Chemical Formula:	$C_{30}H_{40}ClN_7O_3S$
CAS #:	761439-42-3
Molecular Weight:	614.2
Purity:	> 98%
Appearance:	Pale Yellow solid
Solubility:	Soluble in DMSO up to 15 mM
Chemical Name:	5-chloro-N4-(2-(isopropylsulfonyl)phenyl)-N2-(2-methoxy-4-(4-(4-methylpiperazin-1-yl)piperidin-1-yl)phenyl)pyrimidine-2,4-diamine
Storage:	Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.
Shelf Life:	In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

Handling:

- To make 10 mM stock solution, add 0.163mL of DMSO for each mg of NVP-TAE684
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity:

NVP-TAE684 is an aminopyrimidine-based, ATP-competitive inhibitor of ALK (IC50, 3 nM) with additional activity vs Flt3 and Tie2 at values of 3 nM, and 12 nM, respectively. Despite ALK's high sequence homology with insulin receptor kinase (InsR), cellular InsR potency of NVP-TAE684 in Ba/F3 Tel-Flt3 and Ba/F3 Tel-Tie2 cell lines was 554 nM and >1 uM, respectively. [1]

In human anaplastic large-cell lymphoma (ALCL) cell lines expressing NPM-ALK, NVP-TAE684 inhibits proliferation of Karpas-29 and SU-D HL-1 cell lines with an IC50 range of 2-5 nM. Additionally, NVP-TAE684 inhibits phosphorylation of downstream of both ERK and Akt in Karpas-299 cells, thus aiding in the confirmation that STAT, RAS/FAR/MAPK, and PI3K/Akt are activated by NPM-ALK in ALCL cell lines.

NVP-TAE684 has been shown to be efficacious in neuroblastoma lines with constitutively active ALK mutations (G1128A, I1171N, F1174L, R1192P, F1245C, R1275Q). [2] Additionally, NVP-TAE684 is effective in crizotinib-resistant EML4-ALK L1196M mutants as well as other secondary gatekeeper mutations. [2]

Reference:

1. Galkin et al., Identification of NVP-TAE684, a potent, selective, and efficacious inhibitor of NPM-ALK. Proc. Natl. Acad. Sci. 2007, 104(1), 270-275. Pubmed ID: 17185414
2. Schonherr et al., Activating ALK mutations found in neuroblastoma are inhibited by Crizotinib and NVP-TAE684. Biochem. J. 2011, 440, 405-413. Pubmed ID: 21838707
3. Katayama et al., Therapeutic strategies to overcome crizotinib resistance in non-small cell lung cancers harboring the fusion oncogene EML4-ALK. Proc. Natl. Acad. Sci. 2011, 108(18), 7535-7540. Pubmed ID: 21502504

To reorder: http://www.cellagentech.com/NVP-TAE684/

For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.