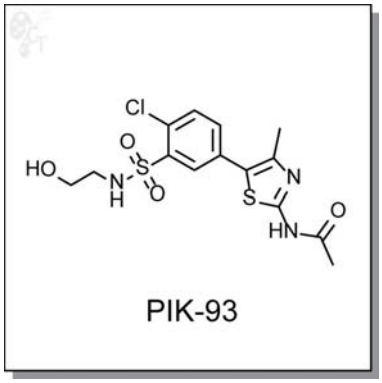
Cellagen Technology

Product Specification Sheet

Product Name: PIK-93

Catalog Number: C7930



Technical information:

Chemical Formula:	$C_{14}H_{16}ClN_3O_4S_2$
CAS #:	593960-11-3
Molecular Weight:	389.88
Purity:	> 98%
Appearance:	White solid
Solubility:	Soluble in DMSO up to 22 mM
Chemical Name:	N-[5-[4-Chloro-3-[(2-hydroxyethyl)sulfamoyl]phenyl]-4-methylthiazol-2-yl]acetamide
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 0.256mL of DMSO for each mg of PIK-93.
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity:

PIK93 is a phenylthiazole-based inhibitor of PI4KIIIb (IC50 = 19 nM) used to evaluate the role of PI4-K isoforms in calcium signaling. [1] At a concentration of 300 nM PIK93 inhibited the p110g isoform of PI3K (Class I) was inhibited at IC50 of 16 nM, while weakly inhibiting PI3K-C2a (IC50 = 16 uM). [2] PIK93 is selective for PI4KIIIb over PI4KIIIa (EC90 = 250 nM and EC50 >10 uM, respectively) and is inactive toward type II PI4Ks. [3] PIK93 was also identified as a potent anti-poliovirus and anti-HCV agent, with EC50s of 0.14 and 1.9 uM, respectively. [4]

Reference:

1. Knight et al., A pharmacological map of the PI3-K family defines a role for p110alpha in insulin signaling. Cell, 2006, 125(4), 733-747. Pubmed ID: 16647110
2. Monet et al., Involvement of phosphoinositide 3-kinase and PTEN protein in mechanism of activation of TRPC6 protein in vascular smooth muscle cells. J. Biol. Chem. 2012, 287(21), 17672-17681. Pubmed ID: 22493444
3. Toth et al., Phosphatidylinositol 4-kinase IIIbeta regulates the transport of ceramide between the endoplasmic reticulum and Golgi. J. Biol. Chem. 2006, 281(47), 36369-36377. Pubmed ID: 17003043
4. Arita et al., Phosphatidylinositol 4-kinase III beta is a target of enviroxime-like compounds for antipoliovirus activity. J. Virol. 2011, 85(5), 2364-2372. Pubmed ID: 21177810

To reorder: http://www.cellagentech.com/PIK-93/

For Technical Support: technical@cellagentech.com

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