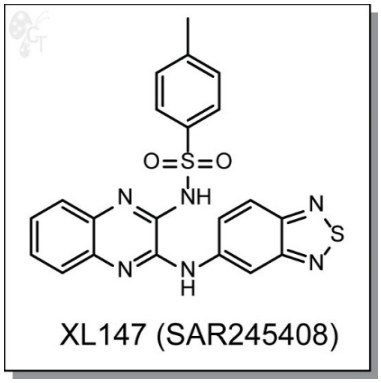
Cellagen Technology

Product Specification Sheet

Product Name: XL147

Catalog Number: C9514



XL147 (SAR245408)

Technical information:

Chemical Formula:	$C_{21}H_{16}N_6O_2S_2$
CAS #:	956958-53-5
Molecular Weight:	448.52
Purity:	> 98%
Appearance:	Green solid
Solubility:	Soluble in DMSO up to 100 mM
Chemical Name:	N-(3-(benzo[c][1,2,5]thiadiazol-5-ylamino)quinoxalin-2-yl)-4-methylbenzenesulfonamide
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 0.223mL of DMSO for each mg of XL147.
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity:

XL147 is an orally-available, reversible and competitive ATP inhibitor of the PI3K class of kinases with potencies of 39 nM, 36 nM, and 23 nM, for isoforms PI3Ka, PI3Kd, PI3Kg, respectively. [1] It is highly selective versus mTOR (>15000 nM) and DNA-PK (4750 nM). and a broad panel of >130 human protein kinases. In cellular assays, XL147 acts as an antagonist on the production of the second messenger phosphatidylinositol-3,4,5-triphosphate (PIP3), resulting in dose-dependent downstream inhibition of phosphorylation of Akt, ribosomal S6K, and ribosomal S6 protein. [1] In MCF7 and PC-3 cell lines, XL147 inhibits pAkt (T308) at 942 and 400 nM, respectively, and inhibits pAkt (S473) at 596 and 310 nM, respectively.

XL147 has been studied as a potentiator of antitumor efficacy of paclitaxel and carboplatin without increased toxicity. [2] XL147 also works synergistically with EGFR inhibitors such as erlotinib. [3]

Reference:

1. Shapiro et al., Targeting Aberrant PI3K Pathway Signaling With XL147, a Potent, Selective, and Orally Bioavailable PI3K Inhibitor. AACR-NCI-EORTC poster, Oct. 2007.
2. Traynor et al., A Phase 1 safety and pharmacokinetic (PK) study of the PI3K inhibitor XL147 (SAR245408) in combination with paclitaxel and carboplatin in patients with advanced solid tumors. ASCO poster, 2010.
3. Moldovan et al., A Phase 1 Safety and Pharmacokinetic (PK) Study of the PI3K Inhibitor XL147 (SAR245408) in Combination with Erlotinib in Patients with Advanced Solid Tumors. ASCO poster, 2010.

To reorder: http://www.cellagentech.com/XL147/

For Technical Support: technical@cellagentech.com

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