

Product Name: Akti-1/2

Catalog No.: 5773

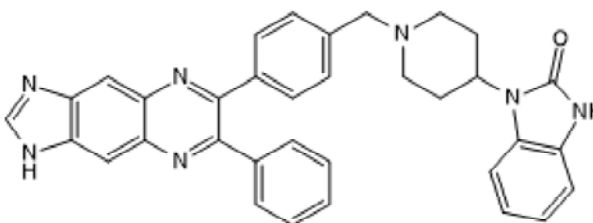
Batch No.: 3

CAS Number: 612847-09-3

IUPAC Name: 1,3-Dihydro-1-[1-[[4-(6-phenyl-1*H*-imidazo[4,5-*g*]quinoxalin-7-yl)phenyl]methyl]-4-piperidinyl]-2*H*-benzimidazol-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₄H₂₉N₇O
Batch Molecular Weight: 551.64
Physical Appearance: Pale yellow solid
Solubility: DMSO to 20 mM with gentle warming
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	74.03	5.3	17.77
Found	73.63	5.33	17.62

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent and selective dual Akt1 and 2 inhibitor (IC₅₀ values are 50 and 210 nM, respectively). Selective for Akt1 and 2 over a panel of other tyrosine and serine/threonine kinases. Sensitizes LnCaP cells to TRAIL (TNF-related apoptosis-inducing ligand) induced apoptosis. Also enhances CAR and TCR retroviral transduction of human T cells. Active in vivo.

Physical and Chemical Properties:

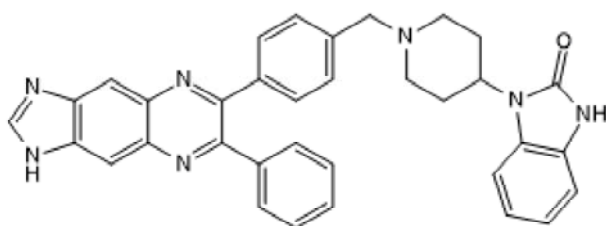
Batch Molecular Formula: C₃₄H₂₉N₇O

Batch Molecular Weight: 551.64

Physical Appearance: Pale yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 20 mM with gentle warming

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Klebanoff et al (2017) Inhibition of AKT signaling uncouples T cell differentiation from expansion for receptor-engineered adoptive immunotherapy. *JCI Insight* **2** e95103. PMID: 29212954.

Bain et al (2007) The selectivity of protein kinase inhibitors: a further update. *Biochem.J.* **408** 297. PMID: 17850214.

Barnett et al (2005) Identification and characterization of pleckstrin-homology-domain-dependent and isoenzyme-specific Akt inhibitors. *Biochem. J.* **385** 399. PMID: 15456405.

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