

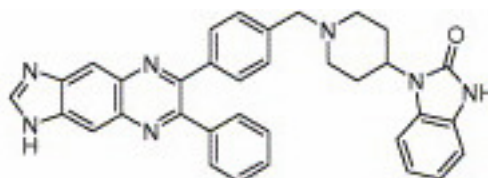
## Akt 1/2 Inhibitor

### 1. Description

Isozyme selective Akt1/2 kinase inhibitor. The Akt1/2 kinase inhibitor shows in in vitro kinase assays inhibition of IC<sub>50</sub> = 58 nM for Akt1 and respectively 210 nM, and 2.12 mM for Akt2, and Akt3. The observed selectivity has been attributed to an allosteric mode of binding, noncompetitive with ATP, wherein Akt inhibition is dependent on the presence of the pleckstrin homology (PH) domain. Importantly, these Akt inhibitors has no inhibitory effect against closely related AGC family (PKA, PKC, SGK) even at concentrations as high as 50 µM.

### 2. Product Information

Akt Inhibitor:	order-no. PKI-AKT
Chemical name:	1,3-Dihydro-1-(1-((4-(6-phenyl-1H-imidazo[4,5-g]quinoxalin-7-yl)phenyl)methyl)-4-piperidiny)-2H-benzimidazol-2-one trifluoroacetate salt hydrate
Formula:	C <sub>34</sub> H <sub>29</sub> N <sub>7</sub> O · xC <sub>2</sub> HF <sub>3</sub> O <sub>2</sub> · yH <sub>2</sub> O
Molecular Weight:	551.64 g/mol (free base basis)
Long Term Storage:	-20°C
Purity:	>98%
Appearance:	solid
Solubility:	soluble in DMSO: 12 mg/mL
Chemical structure:	



### 3. Product specific literature references:

- Zhao Z, Leister WH, Robinson RG, Barnett SF, Defeo-Jones D, Jones RE, Hartman GD, Huff JR, Huber HE, Duggan ME, Lindsley CW. (2005) „*Discovery of 2,3,5-trisubstituted pyridine derivatives as potent Akt1 and Akt2 dual inhibitors.*“ *Bioorg Med Chem Lett.* 15(4) 905-909
- Barnett SF, Defeo-Jones D, Fu S, Hancock PJ, Haskell KM, Jones RE, Kahana JA, Kral AM, Leander K, Lee LL, Malinowski J, McAvoy EM, Nahas DD, Robinson RG, Huber HE. “*Identification and characterization of pleckstrin-homology-domain-dependent and isoenzyme-specific Akt inhibitors.*” *Biochem. J.* 385, 399-408, (2005)