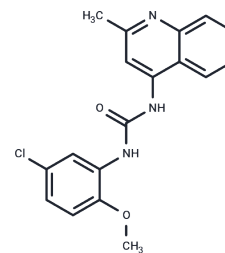


PQ401

## Chemical Properties

CAS No. : 196868-63-0  
 Formula: C<sub>18</sub>H<sub>16</sub>ClN<sub>3</sub>O<sub>2</sub>  
 Molecular Weight: 341.79  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
 Actual storage temperature shall be subject to the COA.



## Biological Description

Description	PQ401 (IGF-1R Inhibitor II) suppresses autophosphorylation of IGF-1R domain(IC <sub>50</sub> <1 μM).
Targets(IC <sub>50</sub> )	Apoptosis,IGF-1R
In vivo	Treated mice received 50 or 100 mg/kg PQ401 prepared in 8% polysorbate 80/ethanol/PBS, administered i.p. thrice a week.
Kinase Assay	IGF-1R Peptide Autophosphorylation: One microgram of constitutively active IGF-1R kinase domain peptide is incubated with varying concentrations of PQ 401 in 2% DMSO in 40 mM Tris (pH 7.4), 80 μMEGTA, 0.25% 2-mercaptoethanol, 80 μM Na <sub>3</sub> VO <sub>4</sub> , 10 mM MgCl <sub>2</sub> , and 2 mM MnCl <sub>2</sub> for 20 minutes. ATP is then added at a final concentration of 20 μM. Autophosphorylation of the kinase domain peptide is allowed to occur for 20 minutes at 22°C. The reaction is stopped by the addition of SDS-reducing buffer and the samples are run on SDS-PAGE. Following transfer to nitrocellulose membrane, peptide autophosphorylation is determined by Western blotting employing an antibody against phosphotyrosine (PY20).
Cell Research	The inhibitory effects of diaryl urea on breast cancer cell growth are determined using a CyQuant cell proliferation assay kit. MCF-7 or MCNeuA cells are plated in 96-well plates (5 × 10 <sup>3</sup> per well) in phenol red-free DMEM supplemented with 10% FCS. One plate is prepared for each harvest day. Cells are allowed to adhere overnight and are then treated with various concentrations of diaryl urea or DMSO as a vehicle control. Microplate cultures are harvested on days 0, 1, 2, and 3 by inverting the microplate onto paper towels with gentle blotting to remove growth medium without disrupting adherent cells. Each plate is kept at 37 °C until the end of the experiment (day 3) when all of the plates are thawed and assayed together. After thawing, 200 μL of CyQuant GR solution are added to each well and the plates are incubated in the dark for 2 to 5 minutes. Fluorescence is measured with a SpectraMax Gemini XS fluorescence microplate reader with 480-nm excitation and 520-nm emission. Proliferation index is calculated as the percent of nucleotide content versus control cells at day 0.(Only for Reference)

## Solubility Information

## A DRUG SCREENING EXPERT

Solubility	Ethanol: 8.5 mg/mL (24.87 mM),Sonication is recommended. DMSO: 17.1 mg/mL (50.03 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.93 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9258 mL	14.6289 mL	29.2577 mL
5 mM	0.5852 mL	2.9258 mL	5.8515 mL
10 mM	0.2926 mL	1.4629 mL	2.9258 mL
50 mM	0.0585 mL	0.2926 mL	0.5852 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Gable KL, et al. Mol Cancer Ther, 2006, 5(4), 1079-1086.

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