

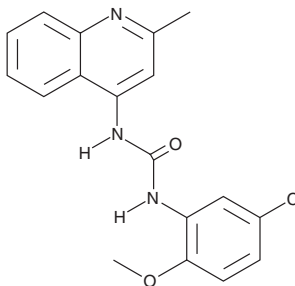
# PRODUCT INFORMATION



## PQ401

Item No. 20979

**CAS Registry No.:** 196868-63-0  
**Formal Name:** N-(5-chloro-2-methoxyphenyl)-N'-(2-methyl-4-quinolinyl)-urea  
**MF:** C<sub>18</sub>H<sub>16</sub>ClN<sub>3</sub>O<sub>2</sub>  
**FW:** 341.8  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

PQ401 is supplied as a solid. A stock solution may be made by dissolving the PQ401 in the solvent of choice, which should be purged with an inert gas. PQ401 is soluble in organic solvents such as ethanol and DMSO. The solubility of PQ401 in these solvents is approximately 25 and 50 mM, respectively.

### Description

PQ401 is an inhibitor of insulin-like growth factor 1 receptor (IGF-1R).<sup>1</sup> It inhibits autophosphorylation of the recombinant IGF-1R kinase domain (IC<sub>50</sub> = <1 μM) in a cell-free assay as well as IGF-1-stimulated IGF-1R autophosphorylation in MCF-7 cells (IC<sub>50</sub> = 12 μM). PQ401 reduces cell viability of U87MG glioma cells with an IC<sub>50</sub> value of 5 μM and induces apoptosis and inhibits cell migration in a concentration-dependent manner.<sup>2</sup> It inhibits IGF-1-stimulated proliferation of MCF-7 cells *in vitro* (IC<sub>50</sub> = 6 μM) and reduces tumor growth in an MCNeuA model of murine breast cancer when administered at doses of 50 and 100 mg/kg.<sup>1</sup> PQ401 also has antimalarial activity against the *P. falciparum* strain 3D7 (EC<sub>50</sub> = 53 nM).<sup>3</sup>

### References

1. Gable, K.L., Maddux, B.A., Penaranda, C., *et al.* Diarylureas are small-molecule inhibitors of insulin-like growth factor I receptor signaling and breast cancer cell growth. *Mol. Cancer Ther.* **5(4)**, 1079-1086 (2006).
2. Zhou, X., Zhao, X., Li, X., *et al.* PQ401, an IGF-1R inhibitor, induces apoptosis and inhibits growth, proliferation and migration of glioma cells. *J. Chemother.* **28(1)**, 44-49 (2016).
3. Zhang, Y., Anderson, M., Weisman, J.L., *et al.* Evaluation of diarylureas for activity against *Plasmodium falciparum*. *ACS Med. Chem. Lett.* **1(9)**, 460-465 (2010).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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