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**Product Data Sheet**

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Product Name: PQR620  
Cat. No.: GC32891

**Chemical Properties**

Cas. No. 1927857-56-4

SMILES [H][C@]1(CC[C@]([H])2COC1)N2C3=NC(N4[C@]5([H])CC[C@]([H])4COC5)=NC(C6=CN=C(N)C=C6C(F)F)=N3

Formula C<sub>21</sub>H<sub>25</sub>F<sub>2</sub>N<sub>7</sub>O<sub>2</sub> M.Wt 445.47

Solubility DMSO : 6.4 mg/mL (14.37 mM) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

**Protocol****Cell experiment:**

The drug concentration causing 50% inhibition of cell proliferation (IC<sub>50</sub>) is obtained in lymphoma cell lines [diffuse large B cell lymphoma (DLBCL); mantle cell lymphoma (MCL); anaplastic large T-cell lymphoma; and others] exposed to increasing doses of PQR620 for 72 h using a Tecan D300e Digital Dispenser on 384 well plates[2].

**Caution: Product has not been fully validated for medical applications. For research use only.**

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### Animal experiment:

Mice[2]For in vivo experiments, NOD-Scid (NOD.CB17-Prkdcscid/J) mice are subcutaneously inoculated with  $10 \times 10^6$  (RIVA) or with  $5 \times 10^6$  (SU-DHL-6) cells. Treatments with PQR620 (100mg/kg dose per day, Qdx7/w) started with 100-150 mm<sup>3</sup> tumors and are carried for 14 (SU-DHL-6) or 21 days (RIVA).

### References:

- [1]. Florent Beaufils, et al.  
Abstract 1336: Structure-activity relationship studies, synthesis, and biological evaluation of PQR620, a highly potent and selective mTORC1/2 inhibitor. Cancer Research; 2016 Apr 16-20.
- [2]. Chiara Tarantelli, et al.  
Targeting the PI3K/mTOR Pathway in Lymphoma with PQR309 and PQR620: Single Agent Activity and Synergism with the BCL2 Inhibitor Venetoclax. Blood 2016 128:3017.

### Background

PQR620 is a novel, selective, orally bioavailable and brain penetrant dual TORC1/2 inhibitor. PQR620 has anti-tumor activity across 56 lymphoma models with a median IC<sub>50</sub> of 250 nM after 72 h of exposure.

PQR620 is a novel brain penetrant dual TORC1/2 inhibitor with anti-tumor activity across 56 lymphoma cell lines with a median IC<sub>50</sub> value of 250 nM after 72 h of exposure.[1]

PQR620 has in vivo anti-lymphoma activity and in vivo synergism with the BCL2 inhibitor

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venetoclax. The combination of PQR620 and venetoclax have stronger in vivo anti-tumor activity than the single agents in a xenograft model of GCB-DLBCL.[1]

[1] Tarantelli C, et al. Cancers (Basel). 2019 Jun 4;11(6).

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