

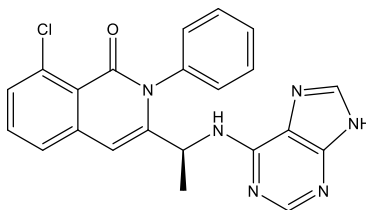
**Catalog # 10-4788**

**Duvelisib**

**CAS# 1201438-56-3**

8-Chloro-2-phenyl-3-[(1S)-1-(7H-purin-6-ylamino)ethyl]isoquinolin-1-one; IPI-145

Lot # FBS1119



Duvelisib is a potent and selective ( $IC_{50}$ 's:  $PI3K\alpha = 1602nM$ ,  $PI3K\beta = 85nM$ ,  $PI3K\delta = 2.5nM$ ,  $PI3K\gamma = 27nM$ ) dual  $PI3K\delta/\gamma$  inhibitor.<sup>1</sup> It inhibits B and T cell proliferation, blocks neutrophil migration, and inhibits basophil activation. Duvelisib antagonizes B-cell receptor crosslinking activated pro-survival signals in primary chronic lymphocytic leukemia cells.<sup>2</sup> Duvelisib also shows preclinical/clinical activity against other hematologic malignancies such as Non-Hodgkins lymphoma, T-cell lymphoma, and others.<sup>3,4</sup> Useful clinical agent for the treatment of various blood cancers. Low-dose treatment of T-cell-inflamed tumor models of head and neck cancers with Duvelisib enhanced responses to PD-L1 blockade via suppression of myeloid-derived suppressor cells.<sup>5</sup> Higher doses reversed the effect due to suppression of tumor-infiltrating T lymphocytes.

- 1) Winkler *et al.* (2013) *PI3K- $\delta$  and PI3K- $\gamma$  Inhibition by IPI-145 Abrogates Immune Response and Suppresses Activity in Autoimmune and Inflammatory Disease Models*; Chem.Biol. **20** 1309
- 2) Dong *et al.* (2014) *IPI-145 antagonizes intrinsic and extrinsic survival signals in chronic lymphocytic leukemia cells*; Blood **124** 3583
- 3) Flinn *et al.* (2018) *Duvelisib, a novel dual inhibitor of PI3K- $\delta,\gamma$ , is clinically active in advances hematologic malignancies*; Blood **131** 877
- 4) Faia *et al.* (2018) *The phosphoinositide-3 kinase (PI3K)- $\delta,\gamma$  inhibitor, duvelisib, shows preclinical synergy with multiple targeted therapies in hematologic malignancies*; PLoS One **13** e0200725
- 5) Davis *et al.* (2017) *Anti-PD-L1 Efficacy Can Be Enhanced by Inhibition of Myeloid-Derived Suppressor Cells with a Selective Inhibitor of PI3K $\delta/\gamma$* ; Cancer Res. **77** 2607

**PHYSICAL DATA**

Molecular Weight:	416.87
Molecular Formula:	C <sub>22</sub> H <sub>17</sub> ClN <sub>6</sub> O
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**