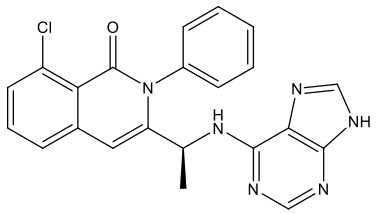
Catalog # 10-4788
Duvelisib
CAS# 1201438-56-3

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: PI3Kα = 1602nM, PI3Kβ = 85nM, PI3Kδ = 2.5nM, PI3Kγ = 27nM) dual PI3Kδ/γ inhibitor.[1] 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.[2] Duvelisib also shows preclinical/clinical activity against other hematologic malignancies such as Non-Hodgkins lymphoma, T-cell lymphoma, and others.[3,4] 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.[5] Higher doses reversed the effect due to suppression of tumor-infiltrating T lymphocytes.

1) Winkler *et al.* (2013) *PI3K-δ and PI3K-γ 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-δ,γ, is clinically active in advances hematologic malignancies;* Blood **131** 877
4) Faia *et al.* (2018) *The phosphoinositide-3 kinase (PI3K)-δ,γ 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 PI3Kδ/γ,* Cancer Res. **77** 2607

PHYSICAL DATA

Molecular Weight:	416.87
Molecular Formula:	$C_{22}H_{17}ClN_6O$
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20ºC 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.

Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462
www.focusbiomolecules.com