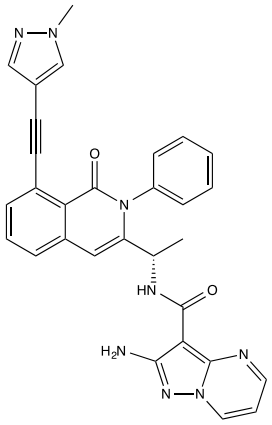
Catalog # 10-4827

IPI-549

1693758-51-8

(S)-2-Amino-N-[1-[8-[2-(1-methylpyrazol-4-yl)ethynyl]-1-oxo-2-phenylisoquinolin-3-yl]ethyl]pyrazolo[1,5-a]pyrimidine-3-carboxamide

Lot # FBS1094



IPI-549 is a potent and highly selective inhibitor of PI3K-γ in both biochemical (IC_{50} = 16 nM) and cellular (IC_{50} = 12.2 nM) assays.[1] Macrophage PI3K-γ has been found to be a critical switch between immune stimulation and suppression.[2] IPI-549 has been used to reshape tumor immune microenvironments and promote cytotoxic T-cell-mediated tumor regression. Resistance to immune checkpoint blockade in 4T1 and B16-GMCSF tumors was overcome when anti-PD-1 or anti-CTLA4 therapies were combined with PI3Kγ inhibition via IPI-549.[3] IPI-549 mono-treatment also resulted in tumor growth inhibition in several cancer cell lines.[3] IPI-549 has also been shown to modulate P-glycoprotein-mediated multidrug resistance.[4]

1) Evans *et al.* (2016) *Discovery of a Selective Phosphoinositide-3-Kinase (PI3K)-g Inhibitor (IPI-549) as an Immuno-Oncology Clinical Candidate;* ACS Med.Chem.Lett. **7** 862
2) Kaneda *et al.* (2016) *PI3Kγ is a molecular switch that controls immune suppression;* Nature **539** 437
3) De Henau *et al.* (2016); *Overcoming resistance to checkpoint blockade therapy by targeting PI3Kγ in myeloid cells;* Nature **539** 443
4) De Vera *et al.* (2019); *Immuno-oncology agent IPI-549 is a modulator of P-glycoprotein (P-gp, MDR1, ABCB1)-mediated multidrug resistance (MDR) in cancer: In vitro and in vivo;* Cancer Letters **442** 91

PHYSICAL DATA

Molecular Weight:	629.68
Molecular Formula:	$C_{30}H_{24}N_8O_2$
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	Pale yellow 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.

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