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Data Sheet

Product Information

Catalog Number	BP22331
Product Name	VPS34 inhibitor 1 (Compound 19, PIK-III analogue)
Description	VPS34 inhibitor 1 (Compound 19, PIK-III analogue) is a potent and selective inhibitor of VPS34(IC50 : 15 nM)
Targets&IC50	Vps34:15 nM
In vitro	VPS34 inhibitor 1 (Compound 19, PIK-III analogue) is extraordinarily selective over other lipid and protein kinases. The ability of compound 19 to prevent the degradation of autophagy substrates p62, NCOA4, NBR1, NDP52, and FTH1 is similar to PIK-III. In addition, treatment of cells with compound 19 leads to an increase in the lipidated and nonlipidated forms of LC3 similar to previous reports using PIK-III.
In vivo	The pharmacokinetic profile of analogue 19 is determined in C57BL/6 mice.?After oral administration at 10 mg/kg, the compound is rapidly absorbed and showed moderate mean systemic clearance (30 mL/min/kg, approximately 33% of hepatic blood flow), with good oral bioavailability (F% = 47).?Based on these PK parameters and the cellular activity, compound 19 constitutes a suitable candidate for in vivo studies.?Upon oral administration of compound 19 at 50 mg/kg twice a day (BID) for 7 days, LC3-II accumulates consistent with reduced autophagic capacity in time-dependent manner.?It inhibits autophagy in vivo.
Synonyms	PIK-III analogue
CAS No.	1383716-46-8
Chemical Formula	C21H25N7O
Molecular Weight	391.479

Solubility	DMSO: 78 mg/mL (199.25 mM)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

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