

## Small Molecules

### Vps34-IN1

Vps34 inhibitor

Catalog #100-0254  
100-0255

1 mg  
5 mg



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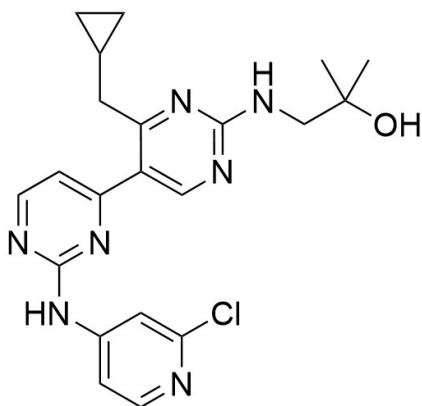
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## Product Description

Vps34-IN1 is a potent and reversible inhibitor ( $IC_{50} = 25$  nM) of vacuolar protein sorting 34 (Vps34), a class II phosphoinositide 3-kinase that regulates autophagosome formation (Bago et al.).

Molecular Name:	Vps34-IN1
Alternative Names:	Vacuolar Protein
CAS Number:	1383716-33-3
Chemical Formula:	$C_{21}H_{24}ClN_7O$
Molecular Weight:	425.9 g/mol
Purity:	≥ 98%
Chemical Name:	1-[[2-[(2-chloro-4-pyridinyl)amino]-4'-(cyclopropylmethyl)[4,5'-bipyrimidin]-2'-yl]amino]-2-methyl-2-propanol
Structure:	



## Properties

Physical Appearance:	A crystalline solid
Storage:	Product stable at -20°C as supplied. Protect from prolonged exposure to light. For long-term storage store with a desiccant. Stable as supplied for 12 months from date of receipt.
Solubility:	• DMSO ≤ 85 mM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 235 µL of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

## Published Applications

### CANCER RESEARCH

- Reduces accumulation of phosphorylated phosphatidylinositol (PtdIns(3)P) at endosomal membranes (Bago et al.).

## References

Bago R et al. (2014) Characterization of VPS34-IN1, a selective inhibitor of Vps34, reveals that the phosphatidylinositol 3-phosphate-binding SGK3 protein kinase is a downstream target of class III phosphoinositide 3-kinase. *Biochem J* 463(3): 413–27.

## Related Small Molecules

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