

# PRODUCT INFORMATION



## Vps34-IN1

Item No. 17392

**CAS Registry No.:** 1383716-33-3  
**Formal Name:** 1-[[2-[(2-chloro-4-pyridinyl)amino]-4'-(cyclopropylmethyl)[4,5'-bipyrimidin]-2'-yl]amino]-2-methyl-2-propanol

**Synonyms:** Vacuolar Protein Sorting 34 Inhibitor 1, Vps34 Inhibitor 1

**MF:** C<sub>21</sub>H<sub>24</sub>ClN<sub>7</sub>O

**FW:** 425.9

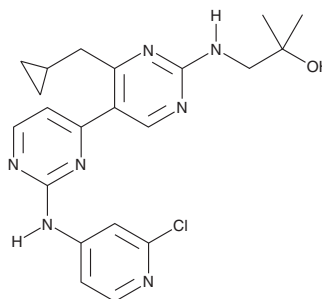
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 286 nm

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Vps34-IN1 is supplied as a crystalline solid. A stock solution may be made by dissolving the VPS34-IN1 in the solvent of choice, which should be purged with an inert gas. Vps34-IN1 is soluble in DMSO at a concentration of approximately 38 mg/ml.

### Description

Vps34-IN1 is a potent inhibitor of the class III phosphoinositide 3-kinase (PI3K) vacuolar protein sorting 34 (Vps34; IC<sub>50</sub> = 25 nM *in vitro*).<sup>1</sup> It does not significantly inhibit the activity of over 340 additional kinases, including class I and II PI3Ks. Vps34-IN1 dose-dependently inhibits generation of PtdIns-(3)-p, which is essential to the formation and trafficking of endosomes and autophagosomes, without affecting the ability of class I PI3K to regulate Akt. It induces a rapid and pronounced loss of phosphorylation on serum- and glucocorticoid-regulated kinase 3.

### Reference

1. Bago, R., Malik, N., Munson, M. J., *et al.* 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. *J. Biochem.* **463(3)**, 413-427 (2014).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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