

PRODUCT INFORMATION

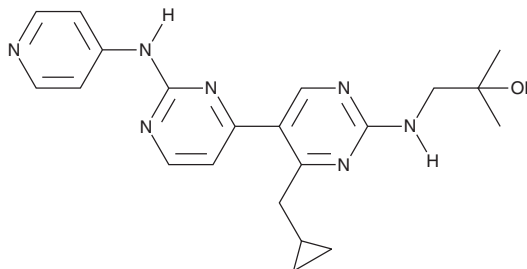


VPS34-IN-19

Item No. 41357

CAS Registry No.: 1383716-46-8
Formal Name: 1-[[4'-(cyclopropylmethyl)-2-(4-pyridinylamino)[4,5'-bipyrimidin]-2'-yl]amino]-2-methyl-2-propanol
Synonyms: Compound 19, Vacuolar Protein Sorting 34 Inhibitor 19, VPS Inhibitor 19

MF: C₂₁H₂₅N₇O
FW: 391.5
Purity: ≥98%
Supplied as: A 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-IN-19 is supplied as a solid. A stock solution may be made by dissolving the VPS34-IN-19 in the solvent of choice, which should be purged with an inert gas. VPS34-IN-19 is soluble (≥10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

VPS34-IN-19 is an inhibitor of the class III phosphatidylinositol 3-kinase (PI3K) vacuolar protein sorting 34 (VPS34; IC₅₀ = 15 nM).¹ It is selective for VPS34 over PI3Kδ (IC₅₀ = 802 nM) and PI3Kα, PI3Kβ, and PI3Kγ (IC₅₀s = >802 nM for all). VPS34-IN-19 (50 mg/kg twice per day) increases the level of intratumoral LC3-II, a marker of reduced autophagy, but does not reduce tumor volume in an RKO colon cancer mouse xenograft model. It also reduces viral titers of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in isolated human lung tissue when used at concentrations of 2.5 and 5 μM.²

References

1. Honda, A., Harrington, E., Cornella-Taracido, I., *et al.* Potent, selective, and orally bioavailable inhibitors of VPS34 provide chemical tools to modulate autophagy *in vivo*. *ACS Med. Chem. Lett.* **7(1)**, 72-76 (2015).
2. Yuen, C.-K., Wong, W.-M., Mak, L.-F., *et al.* Suppression of SARS-CoV-2 infection in ex-vivo human lung tissues by targeting class III phosphoinositide 3-kinase. *J. Med. Virol.* **93(4)**, 2076-2083 (2021).

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.

WARRANTY AND LIMITATION OF REMEDY

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