

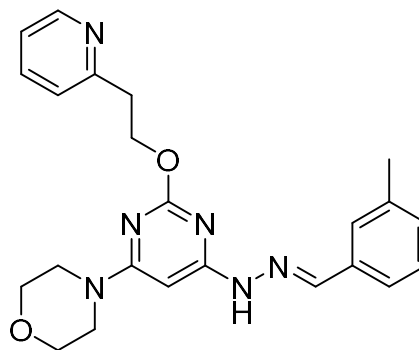
Apilimod (PIKfyve Inhibitor)

Catalog number: B-0308

Molecular Formula: C₂₃H₂₆N₆O₂

MW: 418.49

CAS#: 541550-19-0



Alternative Names: STA-5326, (4-(6-(2-(3-methylbenzylidene)hydrazineyl)-2-(2-(pyridin-2-yl)ethoxy)pyrimidin-4-yl)morpholine

Solubility: DMSO (>10 mg/mL), EtOH (6 mg/mL)

Storage and Handling: Store dry at -20 °C. Stock solutions should be stored at -20 °C or below.

Background: Apilimod inhibits the kinase PIKfyve which phosphorylates PI(3)P to PI(3,5)P₂ with an IC₅₀ = 14 nM. PIKfyve has an important role in endosome formation and related pathways. Apilimod also inhibits Interleukin-12 (IL-12) and Interleukin-23 (IL-23) at 1-2 nM levels in cells. Apilimod has recently been shown to inhibit SARS-Cov2 replication in iPSC-derived pneumocyte-like cells and a primary human lung explant model. Apilimod is orally bioavailable and cell-permeable.

References: 1) Y. Wada, et al. "Selective abrogation of Th1 response by STA-5326, a potent IL-12/IL-23 inhibitor" *Blood*, (2007) 109(3), 1156-1164 doi: 10.1182/blood-2006-04-019398.

2) S. Gayle, et al. "Identification of apilimod as a first-in-class PIKfyve kinase inhibitor for treatment of B-cell non-Hodgkin lymphoma" (2017) 129 (13): 1768-1778. DOI: 10.1182/blood-2016-09-736892.

3) L. Riva et al. "Discovery of SARS-CoV-2 antiviral drugs through large-scale compound repurposing" *Nature* (2020) <https://doi.org/10.1038/s41586-020-2577-1>.

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

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