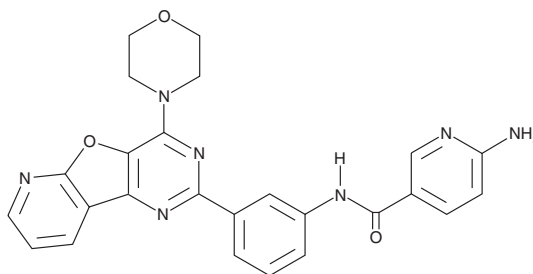


# PRODUCT INFORMATION



**YM-201636**  
Item No. 13576

**CAS Registry No.:** 371942-69-7  
**Formal Name:** 6-amino-N-[3-[4-(4-morpholinyl)pyrido[3',2':4,5]furo[3,2-d]pyrimidin-2-yl]phenyl]-3-pyridinecarboxamide  
**MF:** C<sub>25</sub>H<sub>21</sub>N<sub>7</sub>O<sub>3</sub>  
**FW:** 467.5  
**Purity:** ≥95%  
**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

YM-201636 is supplied as a crystalline solid. A stock solution may be made by dissolving the YM-201636 in the solvent of choice, which should be purged with an inert gas. YM-201636 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of YM-201636 in these solvents is approximately 10 mg/ml.

YM-201636 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, YM-201636 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. YM-201636 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

PIKfyve is a phosphoinositide kinase (PIK) that contains a FYVE-type zinc finger domain, which binds phosphatidylinositol 3-phosphate (PI3P). PIKfyve phosphorylates PI3P to produce PI-(3,5)-P<sub>2</sub>, which is involved in cellular processes including membrane trafficking and cytoskeletal reorganization. YM-201636 is a cell-permeable and selective inhibitor of PIKfyve (IC<sub>50</sub> = 33 nM).<sup>1</sup> It reversibly impairs endosomal trafficking in NIH3T3 cells, mimicking the effect produced by depleting PIKfyve with siRNA.<sup>1</sup> YM-201636 also blocks retroviral exit by budding from cells, apparently by interfering with the endosomal sorting complex required for transport (ESCRT) machinery.<sup>1</sup> In adipocytes, YM-201636 also inhibits basal and insulin-activated 2-deoxyglucose uptake (IC<sub>50</sub> = 54 nM).<sup>2</sup>

## References

1. Jefferies, H.B.J., Cooke, F.T., Jat, P., *et al.* A selective PIKfyve inhibitor blocks PtdIns(3,5)P<sub>2</sub> production and disrupts endomembrane transport and retroviral budding. *EMBO reports* **9**(2), 164-170 (2008).
2. Ikonov, O.C., Sbrissa, D., and Shisheva, A. YM201636, an inhibitor of retroviral budding and PIKfyve-catalyzed PtdIns(3,5)P<sub>2</sub> synthesis, halts glucose entry by insulin in adipocytes. *Biochem. Biophys. Res. Commun.* **382**(3), 566-570 (2009).

### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/20/2022

## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM