

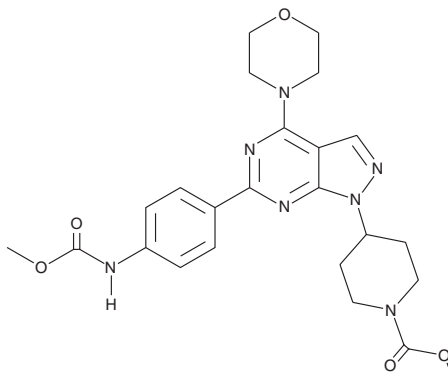
PRODUCT INFORMATION



WYE-354

Item No. 13604

CAS Registry No.: 1062169-56-5
Formal Name: 4-[6-[4-[(methoxycarbonyl)amino]phenyl]-4-(4-morpholinyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl]-1-piperidinecarboxylic acid, methyl ester
MF: C₂₄H₂₉N₇O₅
FW: 495.5
Purity: ≥98%
UV/Vis.: λ_{max}: 287 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

WYE-354 is supplied as a crystalline solid. A stock solution may be made by dissolving the WYE-354 in the solvent of choice, which should be purged with an inert gas. WYE-354 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of WYE-354 in these solvents is approximately 0.4, 30, and 50 mg/ml, respectively.

WYE-354 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, WYE-354 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. WYE-354 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

WYE-354 is a potent cell-permeable inhibitor of mTOR (IC₅₀ = 4.3 nM) which blocks signaling through both mTOR complex 1 (mTORC1) and mTORC2.^{1,2} It is a much weaker inhibitor of phosphatidylinositol 3-kinase α (IC₅₀ = 1026 nM) and other kinases.² WYE-354 induces G₁ cell cycle arrest in both rapamycin-sensitive and rapamycin-resistant cancer cell lines, inhibits mTORC1 and mTORC2 in tumor-bearing mice, and reduces tumor growth in nude mice with PTEN-null tumors.¹

References

1. Yu, K., Toral-Barza, L., Shi, C., *et al.* Biochemical, cellular, and *in vivo* activity of novel ATP-competitive and selective inhibitors of the mammalian target of rapamycin. *Cancer Res.* **69(15)**, 6232-6240 (2009).
2. Zhao, Y., Wieman, H.L., Jacobs, S.R., *et al.* Mechanisms and methods in glucose metabolism and cell death. *Methods Enzymol.* **442**, 439-457 (2008).

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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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