

PRODUCT INFORMATION



WYE-687

Item No. 29977

CAS Registry No.: 1062161-90-3
Formal Name: N-[4-[4-(4-morpholinyl)-1-[1-(3-pyridinylmethyl)-4-piperidinyl]-1H-pyrazolo[3,4-d]pyrimidin-6-yl]phenyl]-carbamic acid, methyl ester

Synonym: WAY-687

MF: C₂₈H₃₂N₈O₃

FW: 528.6

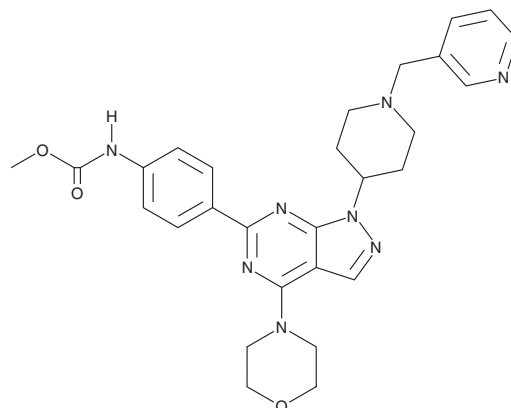
Purity: ≥98%

UV/Vis.: λ_{max}: 287 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

WYE-687 is supplied as a crystalline solid. A stock solution may be made by dissolving the WYE-687 in the solvent of choice, which should be purged with an inert gas. WYE-687 is soluble in the organic solvent DMSO.

Description

WYE-687 is an inhibitor of mammalian target of rapamycin (mTOR; IC₅₀ = 0.007 μM).¹ It is selective for mTOR over PI3Kα and PI3Kγ (IC₅₀s = 0.81 and 3.11 μM, respectively), as well as a panel of 24 additional kinases (IC₅₀s = >50 μM for all). WYE-687 (0.2, 1, and 5 μM) decreases phosphorylation of the mTORC1 and mTORC2 substrates Akt and S6 kinase (S6K1) in a cell-free assay. It decreases proliferation of nine cancer cell lines, including breast, prostate, glioma, kidney, and colorectal cancer cells, with IC₅₀ values ranging from 0.18 to 1.25 μM. WYE-687 inhibits survival of HL-60 and U937 leukemia cells in a concentration-dependent manner and reduces tumor growth in a U937 mouse xenograft model when administered at doses of 5 and 25 mg/kg.²

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. Cheng, F., Wang, L., Shen, Y., *et al.* Preclinical evaluation of WYE-687, a mTOR kinase inhibitor, as a potential anti-acute myeloid leukemia agent. *Biochem. Biophys. Res. Commun.* **470**(2), 324-330 (2016).

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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