

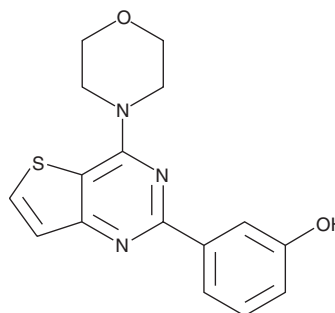
PRODUCT INFORMATION



PI3-Kinase α Inhibitor 2

Item No. 10010177

CAS Registry No.: 371943-05-4
Formal Name: 3-[4-(4-morpholinyl)thieno[3,2-d]pyrimidin-2-yl-phenol
Synonyms: PI3K α Inhibitor 2, Phosphatidylinositol 3-Kinase α Inhibitor 2
MF: C₁₆H₁₅N₃O₂S
FW: 313.4
Purity: \geq 98%
UV/Vis.: λ_{max} : 255, 299 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

PI3-Kinase α (PI3K α) inhibitor 2 is supplied as a crystalline solid. A stock solution may be made by dissolving the PI3K α inhibitor 2 in the solvent of choice. PI3K α inhibitor 2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of PI3K α inhibitor 2 in these solvents is approximately 1, 25, and 30 mg/ml, respectively.

PI3K α inhibitor 2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PI3K α inhibitor 2 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. PI3K α inhibitor 2 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PI3K α inhibitor 2 is an inhibitor of PI3K p110 α (IC₅₀ = 2 nM in an enzyme assay).¹ It is selective for p110 α over p110 β , p110 γ , and PI3K C2 β (IC₅₀s = 16, 660, and 220 nM, respectively). It also inhibits mammalian target of rapamycin (mTOR; IC₅₀ = 49 nM).² PI3K α inhibitor 2 inhibits proliferation in A375 melanoma cells with an IC₅₀ value of 0.58 μ M.¹

References

- Hayakawa, M., Kaizawa, H., Moritomo, H., *et al.* Synthesis and biological evaluation of 4-morpholino-2-phenylquinazolines and related derivatives as novel PI3 kinase p110 α inhibitors. *Bioorg. Med. Chem.* **14**(20), 6847-6858 (2006).
- Verheijen, J.C., Yu, K., Toral-Barza, L., *et al.* Discovery of 2-arylthieno[3,2-d]pyrimidines containing 8-oxa-3-azabi-cyclo[3.2.1]octane in the 4-position as potent inhibitors of mTOR with selectivity over PI3K. *Bioorg. Med. Chem. Lett.* **20**(1), 375-379 (2010).

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, 11/16/2022

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