

PRODUCT INFORMATION

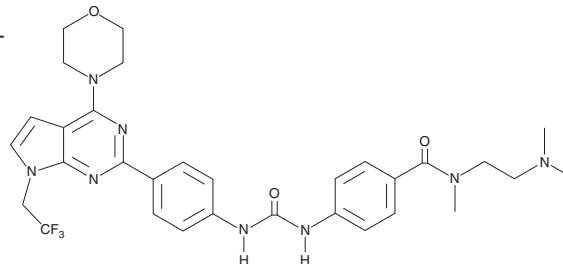


CAY10626

Item No. 13838

CAS Registry No.: 1202884-94-3
Formal Name: N-[2-(dimethylamino)ethyl]-N-methyl-4-[[[4-[4-(4-morpholinyl)-7-(2,2,2-trifluoroethyl)-7H-pyrrolo[2,3-d]pyrimidin-2-yl]phenyl]amino]carbonyl]amino]-benzamide

MF: C₃₁H₃₅F₃N₈O₃
FW: 624.7
Purity: ≥98%
UV/Vis.: λ_{max}: 289 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

CAY10626 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10626 in the solvent of choice, which should be purged with an inert gas. CAY10626 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CAY10626 in these solvents is approximately 15 mg/ml.

CAY10626 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10626 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10626 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Phosphatidylinositol 3-kinase (PI3K) catalyzes the phosphorylation of the 3' hydroxyl position of PIs to produce PtdIns-(3,4)-P₂ and PtdIns-(3,4,5)-P₃, important second messengers that modulate the activity of downstream targets Akt and mTOR.¹ Aberrant PI3K/Akt is associated with many human cancers. CAY10626 is a potent, dual PI3K α /mTOR inhibitor with IC₅₀ values of 0.9 and 0.6 nM for the two respective kinases.² In a tumor cell growth inhibition assay, CAY10626 demonstrates IC₅₀ values of <3 and 13 nM for MDA361 (breast) and PC3 (prostate) cancer cell lines, respectively.² When administered at 25-50 mg/k to MD361 xenograft mice, phosphorylation of the downstream targets of PI3K α and mTOR (Akt T308, Akt S473, and S6K) was suppressed, and significant tumor regression was observed.²

References

1. Rameh, L.E. and Cantley, L.C. The role of phosphoinositide 3-kinase lipid products in cell function. *J. Biol. Chem.* **274**(13), 8347-8350 (1999).
2. Chen, Z., Venkatesan, A.M., Dehnhardt, C.M., *et al.* Synthesis and SAR of novel 4-morpholinopyrrolopyrimidine derivatives as potent phosphatidylinositol 3-kinase inhibitors. *J. Med. Chem.* **53**(8), 3169-3182 (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, 04/01/2024

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