

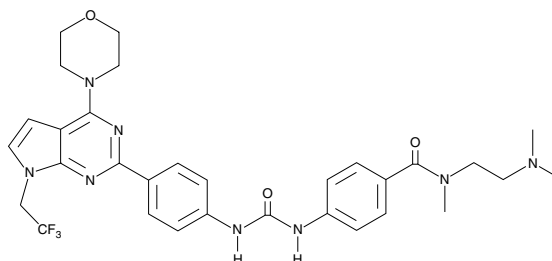
Product Information



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%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that CAY10626 be stored as supplied at -20°C. It should be stable for at least two years.

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

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/kg 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**, 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).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/13838

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

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Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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