

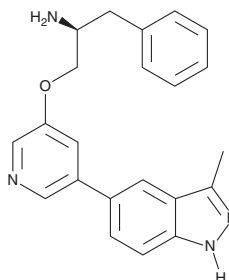
PRODUCT INFORMATION



A-674563

Item No. 18715

CAS Registry No.: 552325-73-2
Formal Name: αS-[[[5-(3-methyl-1H-indazol-5-yl)-3-pyridinyl]oxy)methyl]-benzeneethanamine
MF: C₂₂H₂₂N₄O
FW: 358.4
Purity: ≥95%
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 245, 299 nm
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

A-674563 is supplied as a crystalline solid. A stock solution may be made by dissolving the A-674563 in the solvent of choice. A-674563 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of A-674563 in these solvents is approximately 10, 15, and 20 mg/ml, respectively.

A-674563 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, A-674563 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. A-674563 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

Three related forms of the kinase Akt (1, 2, 3, also known as protein kinase B isoforms PKB α , β , γ) modulate cell proliferation, metabolism, and survival, as well as angiogenesis. A-674563 is an orally available, ATP-competitive, and reversible inhibitor of Akt (K_i = 11 nM for Akt1).¹ It shows inhibitory activity against PKA and Cdk2 with IC_{50} values of 16 and 46 nM, respectively, but is 10- to >1,800-fold selective for Akt1 versus additional kinases in the CMGC, CAMK, and TK families.¹ A-674563 reduces phosphorylation of Akt downstream targets in cells and slows proliferation of tumor cells *in vitro* with an EC_{50} value of 0.4 μ M.¹ *In vivo*, 40mg/kg/day A-674563 in combination with 15 mg/kg/day paclitaxel (Item No. 10461) was shown to decrease tumor growth in a PC-3 prostate cancer mouse xenograft model.¹

Reference

1. Luo, Y., Shoemaker, A.R., Liu, X., *et al.* Potent and selective inhibitors of Akt kinases slow the progress of tumors *in vivo*. *Mol. Cancer Ther.* **4(6)**, 977-968 (2005).

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

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