Product Datasheet

GSK2334470

Catalog No. **BP-02327** · CAS **1227911-45-6** · Form **free base** · Physical state **solid** · Color **Light yellow to yellow** · Version **1.0** · Revision **2026-09-10**

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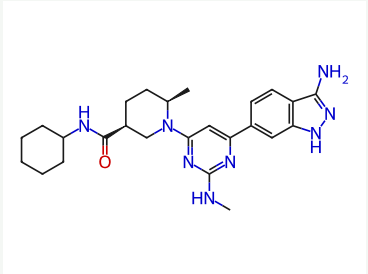
Target	Research area
PDK-1	**Cancer**

Molecular formula	$C_{25}H_{34}N_8O$
Molecular weight	**462.5905**

STRUCTURE



DESCRIPTION

GSK2334470 is a highly specific and potent inhibitor of PDK1 with an IC50 of 10 nM.

BIOLOGICAL ACTIVITY

GSK2334470 is a potent and selective PDK1 (3-Phosphoinositide dependent protein kinase-1) inhibitor. GSK2334470 blocks the phosphorylation of known PDK1 substrates, but surprisingly find that the potency and kinetics of inhibition vary for different PDK1 targets. GSK2334470 subsequent activation of PDK1 substrates S6K1, SGK and RSK in HEK293, U87 and mouse embryonic fibroblast cell lines. GSK2334470 inhibited activation of an Akt1 mutant lacking the PH domain (pleckstrin homology domain) more potently than full-length Akt1, suggesting that GSK2334470 is more effective at inhibiting PDK1 substrates that are activated in the cytosol rather than at the plasma membrane. GSK2334470 also suppressed T-loop phosphorylation and activation of RSK2 (p90 ribosomal S6 kinase 2), another PDK1 target activated by the ERK (extracellular-signal-regulated kinase) pathway.

SOLUBILITY

Soluble in DMSO

REFERENCES

[1]. Najafov A, et al. Characterization of GSK2334470, a novel and highly specific inhibitor of PDK1. Biochem J.?2011 Jan 15;433(2):357-69.

[2]. Scortegagna M, et al. Genetic inactivation or pharmacological inhibition of Pdk1 delays development and inhibits metastasis of Braf(V600E)::Pten(-/-) melanoma. Oncogene. 2014 Aug 21;33(34):4330-9.