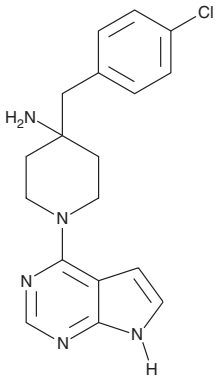
PRODUCT INFORMATION

CCT128930

Item No. 18194



CAS Registry No.: 885499-61-6
Formal Name: 4-[(4-chlorophenyl)methyl]-1-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-4-piperidinamine
MF: $C_{18}H_{20}ClN_5$
FW: 341.8
Purity: ≥95%
UV/Vis.: λ_{max}: 220, 286 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

CCT128930 is supplied as a crystalline solid. A stock solution may be made by dissolving the CCT128930 in the solvent of choice, which should be purged with an inert gas. CCT128930 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CCT128930 in these solvents is approximately 5 and 2 mg/ml, respectively.

CCT128930 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CCT128930 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CCT128930 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CCT128930 is an ATP-competitive inhibitor of Akt2 (IC_{50} = 6 nM).[1] It is selective for Akt over a panel of 47 other kinases, including the related protein kinase A and p70S6K.[1] CCT128930 blocks the phosphorylation of Akt targets, inhibits proliferation of multiple tumor cell lines *in vitro*, and prevents the growth of human tumor xenografts in mice.[1] CCT128930 has been used to elucidate the role of Akt2 in regulating the function of interacting proteins, modulating DNA damage and autophagy in HepG2 hepatoma cells, and cell survival and vasculogenesis in endothelial colony forming cells.[2-4]

References

1. Yap, T.A., Walton, M.I., Hunter, L.-J.K., *et al.* Preclinical pharmacology, antitumor activity, and development of pharmacodynamic markers for the novel, potent AKT inhibitor CCT128930. *Mol. Cancer Ther.* **10(2)**, 360-371 (2011).
2. Bottermann, K., Reinartz, M., Barsoum, M., *et al.* Systematic analysis reveals elongation factor 2 and α-enolase as novel interaction partners of AKT2. *PLoS One* **8(6)**, 1-12 (2013).
3. Wang, F.Z., Chang, Z.Y., Fei, H.R., *et al.* CCT128930 induces cell cycle arrest, DNA damage, and autophagy independent of Akt inhibition. *Biochimie.* **103**, 118-125 (2014).
4. Kim, H., Prasain, N., Vemula, S., *et al.* Human platelet lysate improves human cord blood derived ECFC survival and vasculogenesis in three dimensional (3D) collagen matrices. *Microvasc. Res.* **101**, 72-81 (2015).

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