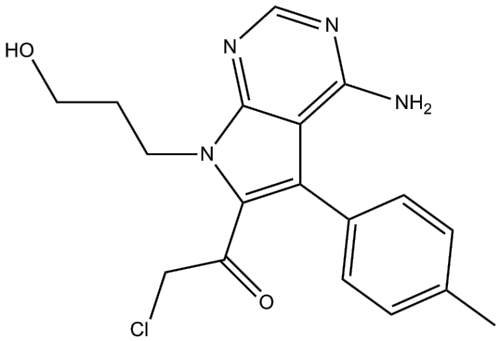
Product Data Sheet

Product Name: CMK
Cat. No.: GC14693

Chemical Properties

Cas. No.	821794-90-5		
Chemical Name	1-[4-amino-7-(3-hydroxypropyl)-5-(4-methylphenyl)pyrrolo[2,3-d]pyrimidin-6-yl]-2-chloro ethanone		
SMILES	CC1=CC=C(C=C1)C2=C(N(C3=C2C(=NC=N3)N)CCCO)C(=O)CCl		
Formula	$C_{18}H_{19}ClN_4O_2$	M.Wt	358.83
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Protocol

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Kinase experiment: For Cdc5 kinase assays, Spc72-TAP is isolated from cell extract by pulldown with IgG sepharose or rabbit IgG coupled to M-270 epoxy dynabeads and incubated in kinase buffer (25 mM HEPES, pH 8.0, 60 mM KCl, 15 mM MnCl2, 100 μg/mL BSA, 80 nM microcystin, 1mM DTT, 100 μM 200 μCi/mL [γ-32P]ATP) in the absence or presence of 100 ng purified baculovirus expressed 6xHis-Cdc5. 32P incorporation is visualized on a Typhoon PhosphorImager, and images are processed using ImageQuant software.

References:

[1]. Snead JL, et al. A coupled chemical-genetic and bioinformatic approach to Polo-like kinase pathway exploration. Chem Biol. 2007 Nov;14(11):1261-72.

Background

CMK is a RSK2 kinase inhibitor which exhibits similar potency but less chemical stability compared with FMK.

CMK inhibits the growth of Cdc5 (L158G) with IC50 of 36 nM, greater than 30 μM for wild type Cdc5. CMK exhibits a concentration-dependent first cell cycle mitotic arrest in the cdc5-as1 strain with an IC50 of 1.1 μM. CMK inhibition of Cdc5 (L158G) leads to a first cell cycle anaphase arrest and delay in anaphase spindle migration[1].

References:
[1]. Snead JL, et al. A coupled chemical-genetic and bioinformatic approach to Polo-like kinase pathway exploration. Chem Biol. 2007 Nov;14(11):1261-72.

Caution: Product has not been fully validated for medical applications. For research use only.
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