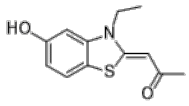
ProbeChem®
Expedite Your Scientific Research

WWW.PROBECHEM.COM

Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	INDY
Cat. No.	:	PC-22436
CAS No.	:	1169755-45-6
Molecular Formula	:	$C_{12}H_{13}NO_2S$
Molecular Weight	:	235.30
Target	:	DYRK
Solubility	:	10 mM in DMSO



Biological Activity

INDY is a potent, selective and ATP-competitive inhibitor of Dyrk1A withIC50 and Ki values of 0.24 and 0.18 μM, respectively.
INDY also inhibited Dyrk1B, the closest Dyrk kinase family member to Dyrk1A, with an IC50 of 0.23 μM.
INDY (10 μM) shows >90% inhibition on DYRK2, DYRK3 and four other kinases, namely CLK1, CLK4, casein kinase 1 (CSNK1D) and PIM1.
INDY effectively reversed the aberrant tau-phosphorylation and rescued the repressed NFAT (nuclear factor of activated T cell) signalling induced by Dyrk1A overexpression.
INDY is capable of manipulating the activity levels of the kinase in cultured cells and Xenopus embryos.
INDY is a valuable tool for the research of Dyrk1A-related diseases including DS, and may lead to invention of a novel therapeutic strategy for the diseases.

References

Masaki S, et al. Bioorg Med Chem. 2015 Aug 1;23(15):4434-4441.

Ogawa Y, et al. Nat Commun. 2010 Oct 5;1:86.

MacDonald J, et al. Mol Cancer Res. 2017 Apr;15(4):371-381.

E-mail: tech@probechem.com