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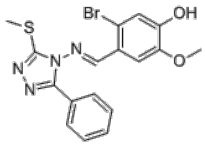
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	GO289
Cat. No.	:	PC-36021
CAS No.	:	694522-87-7
Molecular Formula	:	$C_{17}H_{15}BrN_4O_2S$
Molecular Weight	:	419.297
Target	:	Casein Kinase
Solubility	:	10 mM in DMSO



Biological Activity

GO289 (GO-289, GO 289) is a potent and selective inhibitor of **casein kinase 2 (CK2)** with IC50 of 7 nM in in vitro kinase assays, shows minor effects on CKIδ and CKIα activity in vitro.
GO289 showed only a moderate or minor effect on the activity of 59 kinases from a variety of classes, the second most affected kinase was PIM2 with an IC50 of 13 nM.
GO289 caused dose-dependent lengthening of circadian period not only in Bmal1-dLuc reporter cells but also in Per2-dLuc reporter cells with a phase opposite to that of Bmal1-dLuc.
GO289 inhibits phosphorylation of clock protein PER2 S693 in cells; strongly inhibits Caki-2, A498, and 769-P cancer cells, significantly reduces growth of mouse MLL-AF9 leukemia cells without effect on hematopoietic progenitor cells.
GO289 shows effectivity on circadian period and reporter signal intensity in spleen explants of MLL-AF9 mice.

References

Tsuyoshi Oshima, et al. ***Science Advances*** 23 Jan 2019: Vol. 5, no. 1, eaau9060. DOI: 10.1126/sciadv.aau9060.

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