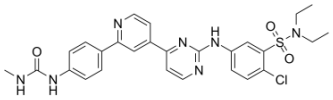
hSMG-1 inhibitor 11j

Cat. No.:	HY-124719
CAS No.:	1402452-15-6
Molecular Formula:	$C_{27}H_{28}ClN_7O_3S$
Molecular Weight:	566.07
Target:	PI3K; mTOR; GSK-3; CDK
Pathway:	PI3K/Akt/mTOR; Stem Cell/Wnt; Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	hSMG-1 inhibitor 11j, a pyrimidine derivative, is a potent and selective inhibitor of hSMG-1, with an IC_{50} of 0.11 nM. hSMG-1 inhibitor 11j exhibits >455-fold selectivity for hSMG-1 over mTOR (IC_{50}=50 nM), PI3Kα/γ (IC_{50}=92/60 nM) and CDK1/CDK2 (IC_{50} =32/7.1 μM). hSMG-1 inhibitor 11j can be used for the research of cancer[1].			
IC_{50} & Target	hSMG-1 0.11 nM (IC_{50})	mTOR 50 nM (IC_{50})	PI3Kγ 60 nM (IC_{50})	PI3Kα 92 nM (IC_{50})
	GSKα 260 (IC_{50})	GSKβ 330 (IC_{50})	CDK2 7.1 μM (IC_{50})	CDK1 32 μM (IC_{50})
In Vitro	hSMG-1 inhibitor 11j (0.3-3 μM; 6 h) significantly reduces UPF1 phosphorylation at 0.3 μM, and eliminates it at 1 μM in MDA 361 cells[1]. hSMG-1 inhibitor 11j inhibits MDA468 cell proliferation, with an IC_{50} of 75 nM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.			

REFERENCES

[1]. Gopalsamy A, et, al. Identification of pyrimidine derivatives as hSMG-1 inhibitors. Bioorg Med Chem Lett. 2012 Nov 1;22(21):6636-41.

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