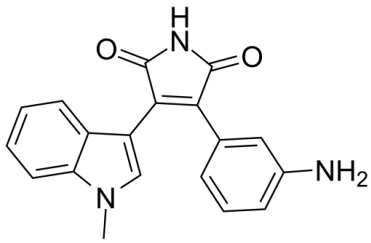
Data Sheet

Product Name:	CP21R7
Cat. No.:	CS-5674
CAS No.:	125314-13-8
Molecular Formula:	$C_{19}H_{15}N_3O_2$
Molecular Weight:	317.34
Target:	GSK-3
Pathway:	PI3K/Akt/mTOR; Stem Cell/Wnt
Solubility:	DMSO : ≥ 32 mg/mL (100.84 mM)



BIOLOGICAL ACTIVITY:

CP21R7 is potent **GSK-3β** inhibitor, with an **IC_{50}** of 1.8 nM; CP21R7 also shows inhibitory activitiy against **PKCα**, with an **IC_{50}** of 1900 nM. IC50 & Target: IC50: 1.8 nM (GSK-3β), 1900 nM (PKCα)[1] **In Vitro:** CP21R7 (Compound 9) is a selective inhibitor of GSK-3β, with an IC_{50} of 1.8 nM; the IC_{50} of CP21R7 against PKCα is 1900 nM[1]. CP21R7 (CP21, 3 μM) potently activates canonical Wnt signaling with highest activity. CP21 significantly increases total levels of intracellular β-catenin. CP21 combined with BMP4 induces commitment of hPSCs towards mesoderm[2].

References:

[1]. Gong L, et al. Discovery of potent and bioavailable GSK-3beta inhibitors. Bioorg Med Chem Lett. 2010 Mar 1;20(5):1693-6.

[2]. Patsch C, et al. Generation of vascular endothelial and smooth muscle cells from human pluripotent stem cells. Nat Cell Biol. 2015 Aug;17(8):994-1003.

CAIndexNames:

1H-Pyrrole-2,5-dione, 3-(3-aminophenyl)-4-(1-methyl-1H-indol-3-yl)-

SMILES:

O=C1C(C2=CN(C)C3=CC=CC=C23)=C(C4=CC(N)=CC=C4)C(N1)=O

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