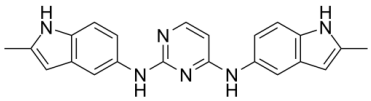
Data Sheet

Product Name:	AZA1
Cat. No.:	CS-0128934
CAS No.:	1071098-42-4
Molecular Formula:	$C_{22}H_{20}N_6$
Molecular Weight:	368.43
Target:	Apoptosis; Ras
Pathway:	Apoptosis; GPCR/G Protein
Solubility:	DMSO : 50 mg/mL (135.71 mM; Need ultrasonic); Methanol : 5 mg/mL (13.57 mM; ultrasonic and adjust pH to 6 with HCl)



BIOLOGICAL ACTIVITY:

AZA1 is a potent dual inhibitor of **Rac1** and **Cdc42**. AZA1 induces prostate cancer cells apoptosis and inhibits prostate cancer cells proliferation, migration and invasion[1][2]. **In Vitro:** AZA1 (Rac1/Cdc42-IN-1) (2-10 μM; 72 hours) blocks the proliferation of human prostate cancer cells 22Rv1 prostate cancer cells[1].
AZA1 (2-10 μM; 24 hours) reduces phosphorylation of PAK1, AKT and BAD in EGF-stimulated 22Rv1 prostate cancer cells[1].
AZA1 (10 μM; 24 hours) blocks Rac1 and Cdc42-dependent cell cycle events in 22Rv1 prostate cancer cells[1].
AZA1 blocks Rac1 and Cdc42-dependent migration of 22Rv1, DU 145 and PC-3 prostate cancer cells[1].
AZA1 affects cell motility and actin rearrangement in prostate cancer cells by suppressing Rac1 and Cdc42 activity via PAK1/2 phosphorylation[1]. **In Vivo:** AZA1 (Rac1/Cdc42-IN-1) (100 μg; i.p.; daily for 2 weeks) is potent in suppressing human 22Rv1 xenograft growth in mice and improving survival[1].

References:

[1]. Zins K, et al. A Rac1/Cdc42 GTPase-specific small molecule inhibitor suppresses growth of primary human prostate cancer xenografts and prolongs survival in mice. PLoS One. 2013;8(9):e74924. Published 2013 Sep 11.

[2]. Suzuki O, et al. Sialylation and glycosylation modulate cell adhesion and invasion to extracellular matrix in human malignant lymphoma: Dependency on integrin and the Rho GTPase family. Int J Oncol. 2015;47(6):2091‐2099.

CAIndexNames:

2,4-Pyrimidinediamine, N2,N4-bis(2-methyl-1H-indol-5-yl)-

SMILES:

CC(N1)=CC2=C1C=CC(NC3=NC(NC4=CC5=C(NC(C)=C5)C=C4)=NC=C3)=C2

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