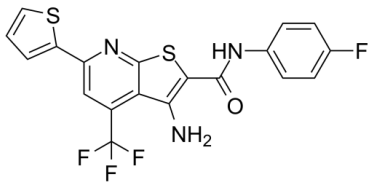
Data Sheet

Product Name:	FDI-6
Cat. No.:	CS-0062893
CAS No.:	313380-27-7
Molecular Formula:	C19H11F4N3OS2
Molecular Weight:	437.43
Target:	Others
Pathway:	Others
Solubility:	DMSO : ≥ 50 mg/mL (114.30 mM)



BIOLOGICAL ACTIVITY:

FDI-6 is an inhibitor of **FOXM1**. FDI-6 binds directly to FOXM1 protein, to displace FOXM1 from genomic targets in MCF-7 breast cancer cells, and induce concomitant transcriptional down-regulation. IC50 & Target: FOXM1[1] **In Vitro:** FDI-6 is characterized in depth and is shown to bind directly to FOXM1 protein, to displace FOXM1 from genomic targets in MCF-7 breast cancer cells, and induce concomitant transcriptional down-regulation. MDA-MB-231 ER-negative breast and PEO-1 ovarian cancer cells are sensitive to FDI-6 in cell viability assays (GI_{50}=21.8 μM and 18.1 μM, respectively) and exhibit comparable down-regulation of CDC25B after a 3 h treatment with FDI-6. The transcription factor FOXM1 regulates a network of proliferation-associated genes critical to mitotic spindle assembly, chromosome segregation, and G_2/M transition, with depletion leading to cell cycle arrest. Importantly, aberrant up-regulation of FOXM1 has been shown to be a key driver of cancer progression and has been proposed as an initiating factor of oncogenesis[1].

References:

[1]. Gormally MV, et al. Suppression of the FOXM1 transcriptional programme via novel small molecule inhibition. Nat Commun. 2014 Nov 12;5:5165.

CAIndexNames:

Thieno[2,3-b]pyridine-2-carboxamide, 3-amino-N-(4-fluorophenyl)-6-(2-thienyl)-4-(trifluoromethyl)-

SMILES:

O=C(C1=C(N)C2=C(C(F)(F)F)C=C(C3=CC=CS3)N=C2S1)NC4=CC=C(F)C=C4

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