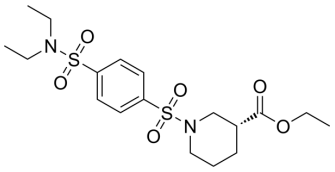
DX2-201

Cat. No.:	HY-145303
CAS No.:	2749554-00-3
Molecular Formula:	$C_{18}H_{28}N_2O_6S_2$
Molecular Weight:	432.55
Target:	Mitochondrial Metabolism; Oxidative Phosphorylation
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	DX2-201 is a potent and selective oxidative phosphorylation (OXPHOS) complex I inhibitor with an IC_{50} of 312 nM. DX2-201 has anticancer effects[1].
IC_{50} & Target	IC50: 312 nM (OXPHOS complex I)[1]
In Vitro	DX2-201 (cmpound 2) potently inhibits the mitochondrial function by depleting ATP production in MIA PaCa-2 cells when glucose is replaced by galactose in the medium, a condition that forces mammalian cells to rely on OXPHOS[1]. DX2-201 depletes ATP production with an IC_{50} value of 118.5 nM in the galactose-containing medium[1]. DX2-201 significantly inhibits OXPHOS complex I as determined by its inhibition of oxidation of NADH to NAD+ in the NAD/NADH assay (IC_{50} = 312 nM)[1]. DX2-201 inhibits MIA PaCa-2 and BxPC-3 cells growth with IC_{50} values of 0.4 μM and 0.6 μM, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ding Xue, et al. Discovery and Lead Optimization of Benzene-1,4-disulfonamides as Oxidative Phosphorylation Inhibitors.J Med Chem. 2022 Jan 13;65(1):343-368. https://pubmed.ncbi.nlm.nih.gov/34982568/

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