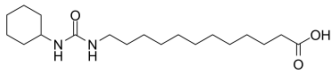
CUDA

Cat. No.:	HY-121538
CAS No.:	479413-68-8
Molecular Formula:	$C_{19}H_{36}N_2O_3$
Molecular Weight:	340.5
Target:	Epoxide Hydrolase; PPAR
Pathway:	Metabolic Enzyme/Protease; Cell Cycle/DNA Damage
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	CUDA is a potent inhibitor of soluble epoxide hydrolase (sEH), with IC_{50}s of 11.1 nM and 112 nM for mouse sEH and human sEH, respectively[1]. CUDA selectively increases peroxisome proliferator-activated receptor (PPAR) alpha activity. CUDA may be valuable for the research of cardiovascular disease[2].

IC_{50} & Target	PPARα	mouse sEH 11.1 nM (IC_{50})	human sEH 112 nM (IC_{50})

In Vitro

CUDA (10 μM; 18 hours) produces 6- and 3-fold increases of PPARalpha in COS-7 cells[2].
CUDA does not alter PPARalpha protein expression, and it competitively inhibits the binding of Wy-14643 (pirinixic acid) to the ligand binding domain of PPARalpha, suggesting that it functions as a PPARalpha ligand[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[2]

Cell Line:	COS-7 cells
Concentration:	10 μM
Incubation Time:	18 hours
Result:	Activated PPARα by binding to the ligand binding domain of PPARα.

REFERENCES

[1]. Morisseau C, et al. Structural refinement of inhibitors of urea-based soluble epoxide hydrolases. Biochem Pharmacol. 2002 May 1;63(9):1599-608.

[2]. Fang X, et al. Activation of peroxisome proliferator-activated receptor alpha by substituted urea-derived soluble epoxide hydrolase inhibitors. J Pharmacol Exp Ther. 2005 Jul;314(1):260-70.

Caution: Product has not been fully validated for medical applications. For research use only.

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