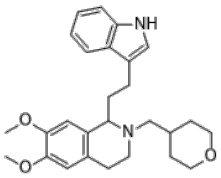
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Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	LH2-051
Cat. No.	:	PC-28579
CAS No.	:	2358754-22-8
Molecular Formula	:	$C_{27}H_{34}N_2O_3$
Molecular Weight	:	434.58
Target	:	Autophagy
Solubility	:	10 mM in DMSO



CAS: 2358754-22-8

Biological Activity

LH2-051 is a **lysosome-enhancing compound** that promote **TFEB** (transcription factor EB) activation and lysosome biogenesis, significantly inhibits the function of the **dopamine transporter** (DAT) and subsequently promotes lysosome biogenesis via DAT-CDK9-TFEB axis.
LH2-051 induces TFEB-dependent lysosome biogenesis.
LH2-051 significantly promotes the nuclear translocation of TFEB-EGFP in a dose- and time-dependent manners.
LH2-051 binds directly with DAT and inhibits DAT function, inhibits DAT-mediated dopamine uptake with IC50 of 4.67 uM.
LH2-051 induces TFEB nuclear translocation through repressing CDK9.
LH2-051 induces the translocation of DAT from the plasma membrane onto lysosomal membranes.
LH2-051 induces a reduction of brain Aβ plaques and improves the memory of APP/PS1 mice.

References

Yin L, et al. ***Alzheimers Dement.*** 2023 Apr;19(4):1343-1357.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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