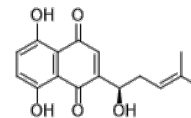


**Product Name** : CNOT6L inhibitor iD1  
**Cat. No.** : PC-23518  
**CAS No.** : 517-89-5  
**Molecular Formula** : C<sub>16</sub>H<sub>16</sub>O<sub>5</sub>  
**Molecular Weight** : 288.30  
**Target** : Other Targets  
**Solubility** : 10 mM in DMSO



## Biological Activity

CNOT6L inhibitor iD1 (Inhibitor of CNOT6L Deadenylase 1, ICCB-475) is a specific small molecule inhibitor of CCR4-NOT deadenylase subunit CNOT6L with K<sub>d</sub> of 7.6 μM and IC<sub>50</sub> of 2.5 μM in FRET-based deadenylase assay, modestly inhibits homolog CNOT6 and does not inhibit CNOT7 or CNOT8.

iD1 stabilizes hepatic GDF15 and FGF21 mRNAs, increasing levels of Gdf15 and Fgf21 mRNAs in primary hepatocytes as well as GDF15 and FGF21 mRNAs in Huh7 cells with EC<sub>50</sub> of 1.11 μM, 2.08 μM, 0.530 μM, and 1.61 μM, respectively.

iD1 decreases body weight by reducing food intake and enhancing energy expenditure and fat utilization, with EC<sub>50</sub> of 1.43 and 1.23 mg/kg for food intake and body weight, respectively.

iD1 demonstrates enhancing GDF15 and FGF21 hepatokine levels, which dramatically improves diet-induced metabolic syndrome.

The CCR4-NOT complex consists of 8 subunits, including two deadenylase catalytic subunits CNOT6/CNOT6L and CNOT7/CNOT8, a scaffold protein CNOT1, and regulatory subunits CNOT2, CNOT3, CNOT9, CNOT10, and CNOT11, CNOT6/CNOT6L is defined as the predominant factor for mRNA deadenylation.

## References

Katsumura S, et al. Cell Metab. 2022 Apr 5;34(4):564-580.e8.

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

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