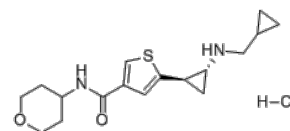


Product Name : TAK-418
Cat. No. : PC-20519
CAS No. : 1818252-53-7
Molecular Formula : C₁₇H₂₅ClN₂O₂S
Molecular Weight : 356.91
Target : Histone Demethylase
Solubility : 10 mM in DMSO



CAS: 1818252-53-7

Biological Activity

TAK-418 (TAK418) is a potent, specific inhibitor of **LSD1** (KDM1A) enzyme activity with IC₅₀ of 2.9 nM.
 TAK-418 does not inhibit recombinant human MAO-A and MAO-B with IC₅₀ of >100 uM.
 TAK-418 (0.1-10 uM) increases H3K4me1/2/3 and H3K9me2 levels at the Ucp2 gene and induces Ucp2 mRNA expression in primary cultured rat neurons, also increases H3K4me1/2/3 at the Bdnf gene.
 TAK-418 has minimal impact on the interaction between LSD1 and its cofactor, GFI1B.
 Single administration of TAK-418 at 1 or 3 mg/kg increases H3K4me2 levels at Ucp2 gene in the mouse brain.
 TAK-418 normalizes mRNA expression dysregulated in neurodevelopmental disorder model rodents.
 TAK-418 produces inverse correlation against the histone modification and DNA methylation levels altered in VPA rats and poly I:C mice.
 TAK-418 ameliorates some ASD-like behaviors in neurodevelopmental disorder model rodents.

References

Baba R, et al. *Sci Adv.* 2021 Mar 12;7(11):eaba1187.

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

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