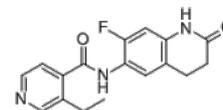


Product Name : KOTX1
Cat. No. : PC-20212
CAS No. : 1788963-83-6
Molecular Formula : C₁₇H₁₆FN₃O₂
Molecular Weight : 313.33
Target : Aldehyde Dehydrogenase (ALDH)
Solubility : 10 mM in DMSO



Biological Activity

KOTX1 (MBE1) is a potent, selective and reversible **ALDH1A3** inhibitor with IC₅₀ of 5.14 nM by Aldefluor assay in A375 cells.

KOTX1 does not inhibit the closely related ALDH1A1 or ALDH2 isoforms.

KOTX1 (40 mg/kg/day, oral gavage, 1 week) inhibits ALDH1A3 activity and restores β-cell function and maturity in db/db mice.

KOTX1 IC₅₀ is 10-fold lower in human A375 cells than in diabetic mouse islets.

KOTX1 (40 mg/kg/day, oral gavage) improved glucose control, increased insulin secretion, and enhanced glucose tolerance in male DIO mice.

References

Jinsook Son, et al. *Nat Commun.* 2023 Feb 2;14(1):558.

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

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