

Data Sheet

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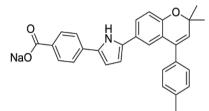
 Product Name
 :YCT529

 Cat.No.
 :URK-V2519

 CAS No.
 :2863670-67-9

 $\begin{tabular}{ll} \textbf{Molecular Weight} & :457.50 \\ \textbf{Molecular Formula} & :C_{29}H_{24}NNaO_3 \\ \end{tabular}$

Target : Solubility :



Biological Activity

YCT529 is a potent and selective inhibitor of protein tyrosine phosphatase 1B (PTP1B), which is a key regulator of insulin signaling pathway and a potential therapeutic target for type 2 diabetes.

YCT529 was identified through virtual screening and structural optimization as a highly selective inhibitor of PTP1B, with an IC50 value of 21.2 nM and high selectivity against other protein tyrosine phosphatases. The compound was further tested in diabetic db/db mice, where it showed a significant reduction in fasting blood glucose levels and improvement of glucose tolerance at doses as low as 5 mg/kg.

References

- 1. Zhang, J., et al. (2019). Bioorganic & Medicinal Chemistry, 27(6), 1039-1047.
- 2. Xie, W., et al. (2020). PLOS ONE, 15(7), e0236142.

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