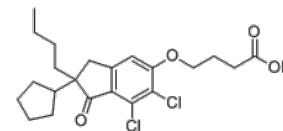


Product Name : DCPIB
Cat. No. : PC-72941
CAS No. : 82749-70-0
Molecular Formula : C₂₂H₂₈Cl₂O₄
Molecular Weight : 427.362
Target : Calcium Channel
Solubility : 10 mM in DMSO



Biological Activity

DCPIB (SN-401) is a selective, reversible and potent inhibitor of volume-regulated anion channels (**VRAC**), inhibits TRESK, TASK1 and TASK3 with IC₅₀ of 0.14, 0.95, and 50.72 uM respectively.

DCPIB (SN-401) is a **SWELL1 channel** inhibitor that bind the SWELL1-LRRC8 channel complexes (IC₅₀=3.9 uM).

SN-401 increases adipocyte SWELL1 protein expression, and SWELL1-dependent insulin signaling.

SN-401 increases SWELL1 and improves systemic glucose homeostasis in murine T2D models by enhancing insulin sensitivity and secretion.

SN-401 improves systemic insulin sensitivity, tissue glucose uptake, and nonalcoholic fatty liver disease in murine T2D models.

SN-401 inhibits ICI,SWELL but promote SWELL1-dependent signaling at sub-micromolar concentrations (0.1-1 uM).

SN-401 prevents reductions in SWELL1 protein and rescues SWELL1-dependent islet insulin secretion under glucolipotoxic conditions.

SN-401 congeners improve glycemic control in murine T2D models

References

David M Kern, et al. *Elife*. 2019 Feb 18;8:e42636.

Gunasekar SK, et al. *Nat Commun*. 2022 Feb 10;13(1):784.

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

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