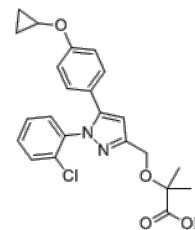

Product Name	: VB124
Cat. No.	: PC-38048
CAS No.	: 2230186-18-0
Molecular Formula	: C ₂₃ H ₂₃ ClN ₂ O ₄
Molecular Weight	: 426.89
Target	: Monocarboxylate Transporter (MCT)
Solubility	: 10 mM in DMSO



Biological Activity

VB124 is a selective, highly potent **MCT4** inhibitor, blocks lactate import (IC₅₀ =8.6 nM) and export (IC₅₀=19 nM) in MDA-MB-231 cells.

VB124 is highly selective for MCT4 over MCT1, showing very little MCT1 inhibitory activity (IC₅₀=24 μM) in MCT1-expressing BT20 cells.

VB124 prevents and reverses hypertrophy in cardiomyocytes, prevents the increased flux from glucose into pyruvate and intra- and extracellular lactate observed in PE- and ISO-treated cardiomyocytes.

VB124 replenishes mitochondrial pyruvate flux, improves mitochondrial membrane potential and mitigates cytosolic ROS.

VB124 prevents cardiac hypertrophy in mice.

References

Cluntun AA, et al. *Cell Metab.* 2021 Mar 2;33(3):629-648.e10.

Fang Y, et al. *Hepatology.* 2022 Jan 19.

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

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