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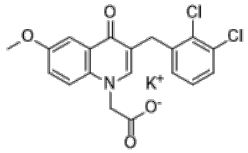
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	WJ-39
Cat. No.	:	PC-22474
CAS No.	:	3009908-95-3
Molecular Formula	:	$C_{19}H_{14}Cl_2KNO_4$
Molecular Weight	:	430.32
Target	:	Aldose Reductase
Solubility	:	10 mM in DMSO



Biological Activity

WJ-39 (Darirestat potassium salt) is a small molecule aldose reductase (AR) inhibitor, does not affect AR protein expression, reduces oxidative stress by activating the nuclear factor erythroid 2-related factor 2 (Nrf2) pathway.
WJ-39 treatment ameliorated streptozotocin- (STZ-) induced renal inflammation in diabetic nephropathy (DN) rats.
WJ-39 suppressed the activation of the nuclear factor-kappa B (NF-κB) pathway and the nucleotide-binding and oligomerization domain-like receptor family pyrin domain-containing 3 (NLRP3) inflammasome to reduce the secretion of inflammatory factors.
WJ-39 alleviated inflammation via the Nrf2 pathway in rat mesangial cells cultured under high glucose (HG) conditions.
WJ-39 treatment prevented renal fibrosis by suppressing the TGF-β1/Smad pathway in diabetic nephropathy (DN).
WJ-39 reduced oxidative stress in the kidneys of DN rats by activating the nuclear factor erythroid 2-related factor 2 (Nrf2) pathway.
WJ-39 ameliorates renal tubular injury in diabetic nephropathy by activating PINK1/Parkin signaling.

References

Yang L, et al. Eur J Pharmacol. 2024 Mar 15;967:176376.

Zhou X, et al. Oxid Med Cell Longev. 2020 May 30;2020:7950457.

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