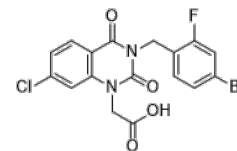


Product Name : Zenarestat
Cat. No. : PC-25939
CAS No. : 112733-06-9
Molecular Formula : C₁₇H₁₁BrClFN₂O₄
Molecular Weight : 441.64
Target : Aldose Reductase
Solubility : 10 mM in DMSO



CAS: 112733-06-9

Biological Activity

Zenarestat (FK-366, FR-74366) is a highly potent, reversible, and mixed type inhibitor of **aldose reductase** (AR) with IC₅₀ of 3.6 and 4.4 nM for purified AR from the rat sciatic nerve and rat lens.

Zenarestat (FK-366, FR-74366) inhibited sorbitol accumulation in the isolated human erythrocyte (IC₅₀ = 1.6 μmol/L), rat lens (IC₅₀ = 39 μmol/L), and rat sciatic nerve (IC₅₀ = 17 μmol/L) incubated with high glucose concentrations.

Oral administration of FR74366 to streptozotocin (STZ)-induced diabetic rats for 2 weeks decreased sorbitol levels (ED₅₀ = 3.7 mg/kg for sciatic nerve, 23 mg/kg for lens, 52 mg/kg for retina, and 62 mg/kg for renal cortex).

Zenarestat (FK-366, FR-74366) induced recovery of reduced motor nerve conduction velocity in diabetic rats, correlated well with reduction of accumulated sorbitol and fructose levels and normalization of decreased myoinositol levels.

References

Ao S, et al. *Metabolism*. 1991 Jan;40(1):77-87.

Akagi Y, et al. *Nippon Ganka Gakkai Zasshi*. 1989 Apr;93(4):494-500.

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

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