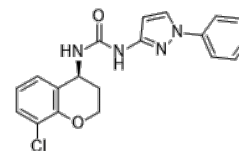


Product Name : PZL-A
Cat. No. : PC-24694
CAS No. : 3068830-89-4
Molecular Formula : C₁₉H₁₇ClN₄O₂
Molecular Weight : 368.82
Target : DNA/RNA Synthesis
Solubility : 10 mM in DMSO



CAS: 3068830-89-4

Biological Activity

PZL-A is a first-in-class small-molecule activator of mitochondrial DNA (mtDNA) synthesis, potently activates mutant **DNA polymerase γ (POL γ)** activity with AC50 of 0.16 and 0.02 μ M for POL γ mutations A467T and G848S respectively. PZL-A restores mutant mitochondrial DNA polymerase activity relative to wild-type. PZL-A interacts directly with the POL γ holoenzyme by monitoring effects on thermal stability. PZL-A binds at the interface between POL γ A and POL γ B. PZL-A increases processivity of mutant POL γ and restores mitochondrial replisome function. PZL-A stimulates mtDNA synthesis and OXPHOS activity in patient cells.

References

Valenzuela S, et al. **Nature**. 2025 Apr 9. doi: 10.1038/s41586-025-08856-9.

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

E-mail: tech@probechem.com