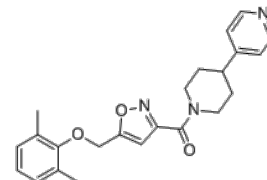


Product Name : Dafadine-A
Cat. No. : PC-38446
CAS No. : 1065506-69-5
Molecular Formula : C₂₃H₂₅N₃O₃
Molecular Weight : 391.471
Target : Cytochrome P450 (CYPs)
Solubility : 10 mM in DMSO



Biological Activity

Dafadine-A is a small molecule inhibitor of DAF-9 cytochrome P450, binds DAF-9 and specifically inhibits its enzymatic activity, promotes dauer formation and longevity of *Caenorhabditis elegans*.

Dafadine-A robustly induces dauer formation in typical culture conditions, also inhibits the mammalian ortholog of DAF-9 (CYP27A1).

Specific chemical inhibition of DAF-9 (cytochrome P450) via Dafadine-A was shown to significantly reduce the amount of endogenous dafachronic acid (DA) in *H. contortus*.

The DAF-9 cytochrome P450 is a key regulator of dauer formation, developmental timing and longevity in the nematode *Caenorhabditis elegans*.

References

Genna M Luciani, et al. *Nat Chem Biol*. 2011 Nov 6;7(12):891-3.

Guangxu Ma, et al. *PLoS Pathog* . 2019 Jul 23;15(7):e1007960.

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

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