Trypanothione synthetase-IN-1

Cat. No.: HY-151148

CAS No.: 2355349-41-4

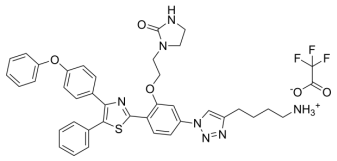
Molecular Formula: $C_{40}H_{38}F_3N_7O_5S$

Molecular Weight: 785.83

Target: Parasite

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Trypanothione synthetase-IN-1 (Compound 1) is a competitive Leishmania infantum trypanothione synthetase (TryS) inhibitor with an IC_{50} of 14.8 μM when triamine spermidine is as polyamine S[1].
IC_{50} & Target	Leishmania
In Vitro	Trypanothione synthetase-IN-1 (Compound 1) (0-75 μM; 24 or 72 h) shows leishmanicidal activity with cytotoxicity[1]. Trypanothione synthetase-IN-1 competes with ATP and the polyamine substrate for binding to LiTryS[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

Cell Line:	L. infantum, HepG2
Concentration:	0-75 μM
Incubation Time:	24 h (L. infantum axenic amastigotes) or 72 h
Result:	Showed leishmanicidal activity with EC_{50}s of 21.5 ± 2.4 μM and 13.5 ± 0.9 μM against axenic amastigotes and intracellular amastigotes, respectively. Showed cytotoxicity with a CC_{50} of 15.9 ± 0.4 μM against HepG2 cells.

REFERENCES

[1]. Alcón-Calderón M, et al. Identification of L. infantum trypanothione synthetase inhibitors with leishmanicidal activity from a (non-biased) in-house chemical library. European Journal of Medicinal Chemistry, 2022: 114675.

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