

Product Data Sheet

Inhibitors

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Proteins

Kukoamine A-d₈ dihydrochloride

Cat. No.: HY-N2392S

Molecular Formula: $C_{28}H_{36}D_8Cl_2N_4O_6$

Molecular Weight: 611.63

Target: Parasite; Isotope-Labeled Compounds

Pathway: Anti-infection; Others

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

Analysis.

BIOLOGICAL ACTIVITY

Description	Kukoamine A-d $_8$ (dihydrochloride) is deuterium labeled Kukoamine A. Kukoamine A is a natural occurring spermine derivative, acts as a potent inhibitor of trypanothione reductase (Ki, 1.8 μ M), with antihypertensive activity[1].
IC ₅₀ & Target	Trypanosoma
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Ponasik JA, et al. Kukoamine A and other hydrophobic acylpolyamines: potent and selective inhibitors of Crithidia fasciculata trypanothione reductase. Biochem J. 1995 Oct 15;311 (Pt 2):371-5.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA