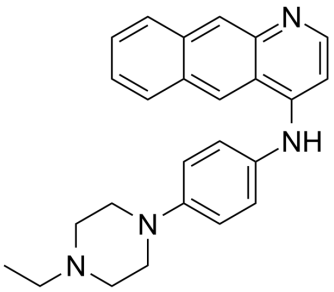
Quinoprazine

Cat. No.:	HY-147371
CAS No.:	115618-99-0
Molecular Formula:	$C_{25}H_{26}N_4$
Molecular Weight:	382.5
Target:	Parasite
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Quinoprazine is a potent inhibitor of Vaccinia virus DNA synthesis with an IC_{50} value of 10 μM. Quinoprazine has antimalarial activity against Plasmodium berghei and also displays antiprion potency, significantly decreases PrP^{Sc} levels[1]-[5].
IC_{50} & Target	Vaccinia virus DNA synthesis[2]
In Vitro	Quinoprazine shows antimalarial action against Plasmodium berghei, the chloroquine-resistant isolate LN-K65[1]. Quinoprazine blocks Vaccinia Virus infection by inhibiting DNA synthesis[2]. Quinoprazine (IND2118) displays good antiprion potency and inhibits baseline PrP^{Sc} with reducing rates of 76% (dividing cells) and 51% (nondividing cells), respectively. Reducing PrP^{Sc} levels by >30% is considered to have good antiprion potency [3][4]. Quinoprazine (IND2118) shows low cytotoxicity with reducing rates of 25% (dividing cells) and 24% (nondividing cells), respectively. Reducing cells <30% is considered to have a safe effect[3][4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Quinoprazine is a 1-alkyl-4-[4-(heterylamino)phenyl]piperazines derivate, Quinoprazine (0.25 g/kg; i.p.; single dose) suppresses the growth of larvocysts of Echinococcus multilocularis in cotton rats[5]. Quinoprazine (0.2-0.5 g/kg; p.o.; single dose) acts against the adult Hymenolepis nana. Exptl. and cures infected mice radically[5]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Mikhaĭlitsyn FS, et al. The search for new antiparasitic agents. 10. The synthesis, toxicological and antimalarial properties of nitrogen-containing heterocycles with a 4-(4-alkylpiperazinyl-1) phenylamine substituent (the preparation quinoprazine). Med Parazitol (Mosk). 1992 Jan-Feb;(1):50-3. Russian.

[2]. Ricciardi RP, et al. Therapeutic compounds for blocking DNA synthesis of POX viruses: United States, US20100035887[P]. 2010-02-11.

[3]. Renslo AR, et al. Preparation of antiprion compounds containing thiazole-amine for treating neurodegenerative diseases: World Intellectual Property Organization, WO2013033037[P]. 2013-03-07.

[4]. Silber BM, et al. Antiprion compounds that reduce PrP(Sc) levels in dividing and stationary-phase cells. Bioorg Med Chem. 2013 Dec 15;21(24):7999-8012.

[5]. Mikhaĭlitsyn FS, et al. The search for new antiparasitic agents. 8. The synthesis and study of the acute toxicity, anti-alveolar hydatid and antihymenolepiasis activity of 1-

alkyl-4[4-(heterylamino)phenyl]piperazines]. Med Parazitol (Mosk). 1991 Sep-Oct;(5):55-7. Russian.

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