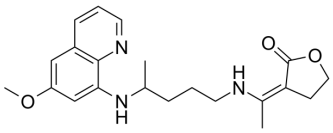
Bulaquine

Cat. No.:	HY-106866
CAS No.:	79781-00-3
Molecular Formula:	$C_{21}H_{27}N_3O_3$
Molecular Weight:	369.46
Target:	Parasite
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Bulaquine (CDRI 80/53) is a potent antimalarial agent which is an analogue of Primaquine (HY-12651A). Bulaquine affects multiple metabolism pathways and shows inhibition effect on ***Plasmodium cynomolgi*** infection. Bulaquine can be used for the research of malaria[1][2][3].
IC_{50} & Target	Plasmodium
In Vivo	Bulaquine (40 mg/kg; p.o. once) affects multiple pathways in vivo[1]. Bulaquine (1.25 mg/kg; once daily; for 7 days) shows 100% curative anti-relapse activity with a primaquine index of 0.8 for rhesus monkeys with Plasmodium cynomolgi B infection[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	25-30 g male Swiss albino mice[1]
Dosage:	40 mg/kg
Administration:	Oral gavage; 40 mg/kg once
Result:	Affected oxidative stress and fatty acid synthesis pathway, apoptosis, cell cycle, inflammatory response, glycogen metabolism, Kreb's cycle, electron transport chain, fatty acid β-oxidation, MAPK signalling, signalling of hepatocyte growth factor receptor, matrix metalloproteinases, steroid biosynthesis, TGF-β signalling, translation factors, Wnt signalling, regulation of actin cytoskeleton, ribosomal proteins, RNA transcription reactome, proteasome degradation and nuclear receptors in lipid metabolism according to GO results.

REFERENCES

[1]. Noel S, et al. Identification of differentially expressed genes after acute exposure to bulaquine (CDRI 80/53) in mice liver. Basic Clin Pharmacol Toxicol. 2008 Dec;103(6):522-9.

[2]. Dutta GP, et al. Radical curative activity of a new 8-aminoquinoline derivative (CDRI 80/53) against Plasmodium cynomolgi B in monkeys. Am J Trop Med Hyg. 1989 Dec;41(6):635-7.

[3]. Wells TN, et al. Targeting the hypnozoite reservoir of Plasmodium vivax: the hidden obstacle to malaria elimination. Trends Parasitol. 2010 Mar;26(3):145-51.Wells TN, et al. Targeting the hypnozoite reservoir of Plasmodium vivax: the hidden obstacle to malaria elimination. Trends Parasitol. 2010 Mar;26(3):145-51.

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