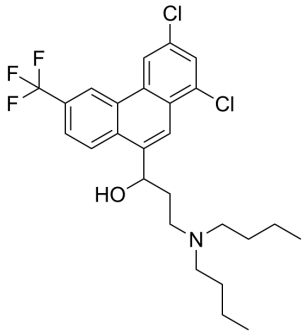
Halofantrine

Cat. No.:	HY-A0148
CAS No.:	69756-53-2
Molecular Formula:	$C_{26}H_{30}Cl_2F_3NO$
Molecular Weight:	500.42
Target:	Parasite; Potassium Channel
Pathway:	Anti-infection; Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Halofantrine (SKF-102886 free base) is a highly lipophilic antimalarial active against Chloroquine-resistant strains of Plasmodium falciparum[1]. Halofantrine blocks HERG potassium channels[2].
IC_{50} & Target	Plasmodium
In Vitro	Halofantrine blocks HERG tail currents elicited on repolarization to 760 mV from +30 mV with an IC_{50} of 196.9 nM[2]. Halofantrine inhibits MDA-MB-231 triple-negative breast cancer (TNBC) cell proliferation with the IC_{50} of 7.73±0.23 μM[3]. Halofantrine exhibits activity against asexual forms (3D7A), asexual forms (3D7HT-GFP), and mature gametocytes IV-V with IC_{50}s of 0.0011, 0.0012, and 6.70 μM, respectively[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[3]

Cell Line:	MDA-MB-231 TNBC
Concentration:	0, 2.50, 5.00, 10.00, 20.00, 40.00, and 80.00 μM
Incubation Time:	3 days
Result:	IC_{50} was 7.73±0.23 μM.

REFERENCES

[1]. A J Humberstone, et al. Effect of altered serum lipid concentrations on the IC50 of halofantrine against Plasmodium falciparum. J Pharm Sci. 1998 Feb;87(2):256-8.

[2]. H Tie, et al. Inhibition of HERG potassium channels by the antimalarial agent halofantrine. Br J Pharmacol. 2000 Aug;130(8):1967-75.

[3]. Ji-Hyun Lee, et al. CDA: combinatorial drug discovery using transcriptional response modules. PLoS One. 2012;7(8):e42573.

[4]. Joël Lelièvre, et al. Activity of clinically relevant antimalarial drugs on Plasmodium falciparum mature gametocytes in an ATP bioluminescence "transmission blocking" assay. PLoS One. 2012;7(4):e35019.

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

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