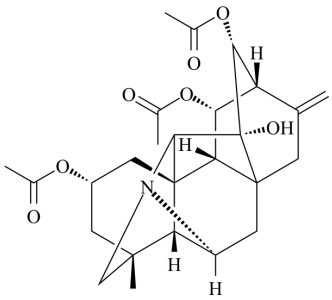
Guanfu base G

Cat. No.:	HY-N5006
CAS No.:	78969-72-9
Molecular Formula:	$C_{26}H_{33}NO_7$
Molecular Weight:	471.54
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Guanfu base G is an antiarrhythmic alkaloid isolated from Aconitum coreanum. Guanfu base G inhibits HERG channel current with an IC_{50} of 17.9 μM[1][2].
IC_{50} & Target	IC50: 17.9 μM (HERG channel)[2]
In Vitro	The effects of Guanfu base G is investigated in human embryonic kidney 293 (HEK293) cells transiently transfected with HERG complementary DNA using a whole-cell patch clamp technique. Guanfu base G inhibits HERG channel current in concentration-, voltage-, and time-dependent manners. Guanfu base G shifts the activation curve in a negative direction and accelerated channel inactivation but shows no effect on the inactivation curve. Moreover, Guanfu base G also accelerates channel recovery from inactivation[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Guanfu base G (5 mg/kg; intravenous injection; for 5-1200 minutes; rats) treatment in rats after 15 min could be detected the presence of Guanfu base A, about 10% of Guanfu base G in vivo could metabolize to Guanfu base A, which may be related to the metabolic enzymes in the body and its nature-related compounds, however, the substance in the body to eliminate more quickly, could be detected only around 240 min. The pharmacokinetic behavior of Guanfu base G is better in rats, the $T_{1/2}$ is 4.16 hours. These results indicate that Guanfu base G has a relatively suitable elimination half-life[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Rats[1]
Dosage:	5 mg/kg
Administration:	Intravenous injection; for 5, 15, 30, 45, 60, 120, 240, 360, 480, 600, 720, 960 and 1200 minutes (Pharmacokinetic study)
Result:	The pharmacokinetic behavior was better in rats, the $T_{1/2}$ was 4.16 hours.

REFERENCES

[1]. Zhang L, et al. Simultaneous determination of Guanfu base G and its active metabolites by UPLC-MS/MS in rat plasma and its application to a pharmacokinetic study. J Chromatogr B Analyt Technol Biomed Life Sci. 2014 Apr 15;957:1-6.

[2]. Huang X, et al. Comparative effects of Guanfu base A and Guanfu base G on HERG K+ channel. J Cardiovasc Pharmacol. 2012 Jan;59(1):77-83.

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

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