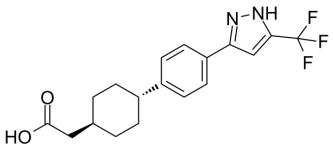
A-935142

Cat. No.:	HY-113673
CAS No.:	1031335-85-9
Molecular Formula:	$C_{18}H_{19}F_3N_2O_2$
Molecular Weight:	352.35
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	A-935142 is a human ether-a-go-go-related gene (hERG, Kv 11.1) channel activator. A-935142 enhances hERG current in a complex manner by facilitation of activation, reduction of inactivation, and slowing of deactivation, and abbreviates atrial and ventricular repolarization[1][2].
In Vitro	A-935142 shortens the action potential duration (APD90) in guinea pig atrial tissue and canine cardiac Purkinje fibers[1]. A-935142 shortens cardiac action potentials and enhances the amplitude of the hERG current in a concentration- and voltage-dependent manner. A-935142 (60μM) increases both outward and inward K(+) current as well as the slope conductance of the linear portion of the fully activated I-V relation. A-935142 significantly reduces the time constants (tau) of hERG channel activation at two example voltages (-10 mV: tau=100+/-17 ms vs. 164+/-24 ms, n=6, P<0.01; +30 mV: tau=16.7+/-1.8 ms vs. 18.9+/-1.8 ms, n=5, P<0.05) and shifts the voltage-dependence for hERG activation in the hyperpolarizing direction by 9 mV[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ohno H, et al. Absorption, disposition, metabolism and excretion of [14C]mizagliflozin, a novel selective SGLT1 inhibitor, in rats. Xenobiotica. 2019 Apr;49(4):463-473.

[2]. Liu X, et al.Characterization of A-935142, a hERG enhancer, in the presence and absence of standard hERG blockers. Life Sci. 2012 Apr 20;90(15-16):607-11.

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