**Product Data Sheet**

**Product Name:** NS1643  
**CAS No.:** 448895-37-2  
**Cat. No.:** HY-16916  
**MWt:** 380.24  
**Formula:** C15H10F6N2O3  
**Purity :** >98%  
**Solubility:** 100 mM in ethanol and 25 mM in DMSO

**Mechanisms:**  
Pathways: Membrane Transporter/Ion Channel; Target: Potassium Channel

**Biological Activity:**

NS1643 is a potent human ether-a-go-go-related gene (hERG) KV11.1 channel activator (EC50 = 10.5 μM).  
**IC50 value:** Target: HERG activator  
in vitro: NS1643 enhanced the magnitude of wild-type hERG current in a concentration- and voltage-dependent manner with an EC(50) of 10.4 microM at -10 mV. The fully activated current-voltage relationship revealed that the drug increased outward but not inward currents, consistent with altered inactivation gating. NS1643 shifted the voltage dependence of inactivation by +21 mV at 10 microM and +35 mV at 30 microM, but it did not alter the voltage dependence of activation of hERG channels [1]. In Xenopus laevis oocytes, NS1643 increased both steady-state and tail current at all voltages tested. The EC(50) value for HERG channel activation was 10.5 microM [2]. NS1643 also activates the ERG2 channel; however, the molecular mechanism of...

**References:**


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**Caution:** Not fully tested. For research purposes only

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