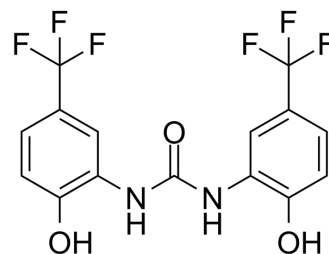


NS1643

Cat. No.:	HY-16916		
CAS No.:	448895-37-2		
Molecular Formula:	C ₁₅ H ₁₀ F ₆ N ₂ O ₃		
Molecular Weight:	380.24		
Target:	Potassium Channel; Autophagy		
Pathway:	Membrane Transporter/Ion Channel; Autophagy		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (262.99 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.6299 mL	13.1496 mL	26.2992 mL
	5 mM	0.5260 mL	2.6299 mL	5.2598 mL
	10 mM	0.2630 mL	1.3150 mL	2.6299 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (6.57 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (6.57 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (6.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NS1643 is a partial agonist of human ether-a-go-go-related gene (hERG) K(+) channels with an EC₅₀ of 10.5 μM. NS1643 has distinct effects on erg2 (Kv11.2) currents by reducing channel inactivation especially at high concentrations^[1]. NS1643 increases the repolarization reserve and exhibits an interesting new antiarrhythmic approach^[2].

IC₅₀ & Target

EC₅₀: 10.5 μM (hERG) K(+) channel^[1]

REFERENCES

- [1]. Sun XJ, et al. The Role of Histone Acetyltransferases in Normal and Malignant Hematopoiesis. *Front Oncol.* 2015 May 26;5:108.
- [2]. Casis O, et al. Mechanism of action of a novel human ether-a-go-go-related gene channel activator. *Mol Pharmacol.* 2006 Feb;69(2):658-65. Epub 2005 Nov 11.
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Caution: Product has not been fully validated for medical applications. For research use only.

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