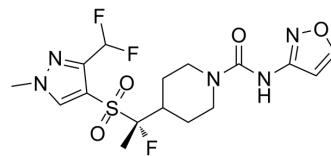


Danicamtiv

Cat. No.:	HY-109128		
CAS No.:	1970972-74-7		
Molecular Formula:	C ₁₆ H ₂₀ F ₃ N ₅ O ₄ S		
Molecular Weight:	435.42		
Target:	Myosin		
Pathway:	Cytoskeleton		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (114.83 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.2966 mL	11.4832 mL	22.9663 mL
	5 mM	0.4593 mL	2.2966 mL	4.5933 mL
	10 mM	0.2297 mL	1.1483 mL	2.2966 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 (5.74 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (5.74 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (5.74 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Danicamtiv (MYK-491), an inotropic agent, is a selective allosteric activator of cardiac myosin. Danicamtiv increases cardiac systolic function and preserves mechanical efficiency^[1].

In Vivo

Danicamtiv selectively enhances cardiac actomyosin activity, the molecular force-generating unit of the sarcomere, prolonging contraction while preserving actin-myosin detachment, allowing relaxation, and without impacting Ca²⁺ homeostasis^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Sarah Fernandes, et al. Abstract 15707: MYK-491, a Novel Small-Molecule Cardiac Myosin Activator Increases Cardiac Systolic Function and Preserves Mechanical Efficiency: Pre-Clinical in vivo and in vitro Evidence. *Circulation*. 2019;140:A15707

[2]. Voors AA, et al. Effects of danicamtiv, a novel cardiac myosin activator, in heart failure with reduced ejection fraction: experimental data and clinical results from a phase 2a trial. *Eur J Heart Fail*. 2020;22(9):1649-1658.

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

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