PRODUCT INFORMATION



Danicamtiv

Item No. 36875

CAS Registry No.: 1970972-74-7

Formal Name: 4-[(1R)-1-[[3-(difluoromethyl)-1-

> methyl-1H-pyrazol-4-yl]sulfonyl]-1-fluoroethyl]-N-3-isoxazolyl-1-

piperidinecarboxamide

Synonyms: MYK-491, SAR440181

MF: $C_{16}H_{20}F_3N_5O_4S$

FW: 435.4 **Purity:** ≥98% Supplied as: A solid -20°C Storage: Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Danicamtiv is supplied as a solid. A stock solution may be made by dissolving the danicamtiv in the solvent of choice, which should be purged with an inert gas. Danicamtiv is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of danicamtiv in these solvents is approximately 5 mg/ml.

Description

Danicamtiv is a cardiac-specific myosin activator. 1,2 It activates human cardiac S1 myosin when used at a concentration of 3 μM but does not activate skeletal or smooth muscle myosin. 1 It increases sarcomere activity of isolated porcine left ventricular and atrial myofibrils with 50% active concentration values (AC $_{50}$ s) of 6 and 3.6 μM, respectively. Danicamtiv (3 μM) increases calcium sensitivity of isolated porcine skinned left ventricular and atrial fibers. Danicamtiv (2-3 mg/kg) also prolongs systolic ejection time and improves left ventricular ejection fraction and stroke volume in a dog model of heart failure.

References

- 1. Voors, A.A., Tamby, J.-F., Cleland, J.G., 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. 22(9), 1649-1658 (2020).
- 2. Grillo, M.P., Markova, S., Evanchik, M., et al. Preclinical in vitro and in vivo pharmacokinetic properties of danicamtiv, a new targeted myosin activator for the treatment of dilated cardiomyopathy. Xenobiotica **51(2)**, 222-238 (2021).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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