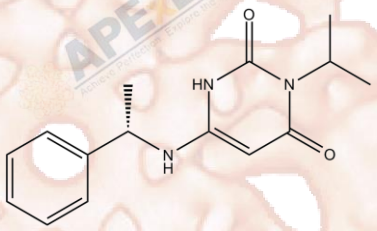
Product Data Sheet

MYK-461



Cat. No.:	A8720
CAS No.:	1642288-47-8
Formula:	C15H19N3O2
M.Wt:	273.33
Synonyms:	Mavacamten,SAR439152
Target:	Membrane Transporter/Ion Channel
Pathway:	ATPase
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾11.32 mg/mL in EtOH with ultrasonic; ⩾13.65 mg/mL in DMSO

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	3.6586 mL	18.2929 mL	36.5858 mL
5 mM	0.7317 mL	3.6586 mL	7.3172 mL
10 mM	0.3659 mL	1.8293 mL	3.6586 mL

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

Biological Activity

Shortsummary	inhibits adenosine triphosphatase activity
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Adult rat ventricular cardiomyocytes
Preparation method:	The solubility of this compound in DMSO is >13.7mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	IC50: 0.18 mM

	Applications:	MYK-461 inhibited myosin ATPase and contractility of cardiomyocytes. Treatment of mouse cardiac myofibrils with MYK-461 dose-dependently reduced ATPase activity.
In Vivo	**Animal experiment**	
	Animal models:	Wild-type (WT) and HCM mice expressing a–cardiac myosin heavy chain missense mutations R403Q, R719W, or R453C.
	Dosage form:	2.5 mg/kg per day via drinking water.
	Applications:	MYK-461 reduced the development of myocardial disarray and fibrosis in mouse models of HCM. In adult rat ventricular cardiomyocytes, MYK-461 dose-dependently reduced the fractional shortening without changing the calcium transient. HCM mice treated with MYK-461 had left ventricular wall thickness (LVWT) comparable to that of WT mice.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Green E M, Wakimoto H, Anderson R L, et al. A small-molecule inhibitor of sarcomere contractility suppresses hypertrophic cardiomyopathy in mice[J]. Science, 2016, 351(6273): 617-621.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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