

SERCA2a activator 1

Chemical Properties

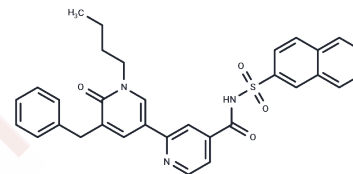
CAS No. : 2139330-34-8

Formula: C₃₂H₂₉N₃O₄S

Molecular Weight: 551.66

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	SERCA2a activator 1 is a sarco/endoplasmic reticulum Ca ²⁺ -dependent ATPase 2a activator. SERCA2a activator 1 decreases phospholamban inhibition and enhances the systolic and diastolic functions of the heart.
Targets(IC50)	Calcium Channel
In vitro	SERCA2a activator 1 activates the Ca ²⁺ -dependent ATPase activity of cardiac sarcoplasmic reticulum vesicles but not that of skeletal muscle SR vesicles that lack phospholamban. SERCA2a activator 1 also increases the Ca ²⁺ transients and contraction and relaxation of isolated adult rat cardiomyocytes. The surface plasmon resonance assay reveals a direct interaction between SERCA2a activator 1 and PLN, suggesting that the binding of SERCA2a activator 1 to PLN attenuates its inhibition of SERCA2a, resulting in SERCA2a activation [1].
In vivo	SERCA2a activator 1 (30mg/kg; intravenous injection; male Wistar rats) treatment obviously increases the diastolic function in anesthetized normal rats [1].

Solubility Information

Solubility	DMSO: 60 mg/mL (108.76 mM), Sonication and heating to 80°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8127 mL	9.0636 mL	18.1271 mL
5 mM	0.3625 mL	1.8127 mL	3.6254 mL
10 mM	0.1813 mL	0.9064 mL	1.8127 mL
50 mM	0.0363 mL	0.1813 mL	0.3625 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kaneko M, et al. A pyridone derivative activates SERCA2a by attenuating the inhibitory effect of phospholamban. Eur J Pharmacol. 2017 Nov 5;814:1-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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