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## Product Data Sheet

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Product Name: SERCA2a activator 1

Cat. No.: GC64311

### Chemical Properties

Cas. No. 2139330-34-8

Formula C<sub>32</sub>H<sub>29</sub>N<sub>3</sub>O<sub>4</sub>S

M.Wt 551.66

Solubility DMSO : 62.5 mg/mL (113.29 mM; ultrasonic and warming and heat to 80°C)

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

### Background

SERCA2a activator 1 (Compound A) is a sarco/endoplasmic reticulum Ca<sup>2+</sup>-dependent ATPase 2a (SERCA2a) activator. SERCA2a activator 1 attenuates phospholamban inhibition and enhances the systolic and diastolic functions of the heart. SERCA2a activator 1 can be used for heart failure[1].

SERCA2a activator 1 (Compound A) activates the Ca<sup>2+</sup>-dependent ATPase activity of cardiac sarcoplasmic reticulum (SR) vesicles but not that of skeletal muscle SR vesicles that lack phospholamban (PLN). 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]. SERCA2a activator 1 also increases the Ca<sup>2+</sup> transients and contraction and relaxation of isolated adult rat cardiomyocytes. In isolated perfused rat hearts, the SERCA2a activator 1 enhances systolic and diastolic functions[1].

SERCA2a activator 1 (Compound A; 30mg/kg; intravenous injection; male Wistar rats) treatment significantly enhances the diastolic function in anesthetized normal rats[1].

[1]. Kaneko M, et al. A pyridone derivative activates SERCA2a by attenuating the

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

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inhibitory effect of phospholamban. Eur J Pharmacol. 2017 Nov 5;814:1-8.

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