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N106

产品编号: D50929

CAS: 862974-25-2

分子式: C17H14N4O3S

纯度: ≥98%

InChi: InChI=1S/C17H14N4O3S/c1-22-11-8-6-10(7-9-11)15-20-21-16(24-15)19-17-18-14-12(23-2)4-3-5-13(14)25-17/h3-9H,1-2H3,(H,18,19,21)

InChi Key: FBCSWQRNKAYAGY-UHFFFAOYSA-N

Smiles: COC1=CC=CC2SC(NC3=NN=C(O3)C3C=CC(=CC=3)OC)=NC=21

外观: 固体粉末

溶解性: DMSO up to 50 mM

保存条件: Store in dry, dark place for one year.

产品介绍: N106 is a potent SERCA2a SUMOylation activator, which increases SUMOylation of SERCA2a. Decreased activity and expression of the cardiac sarcoplasmic reticulum calcium ATPase (SERCA2a), a critical pump regulating calcium cycling in cardiomyocyte, are hallmarks of heart failure. The small ubiquitin-like modifier type 1 (SUMO-1) is a regulator of SERCA2a and the gene transfer of SUMO-1 in rodents and large animal models of heart failure could restore cardiac function. N106 directly activates the SUMO-activating enzyme, E1 ligase, and triggers intrinsic SUMOylation of SERCA2a. There is a pocket on SUMO E1 likely to be responsible for N106's effect. N106 treatment increases contractile properties of cultured rat cardiomyocytes and significantly improves ventricular function in mice with heart failure. N106 may serve as a good tool compound to validate a potential therapeutic strategy for treatment of heart failure.