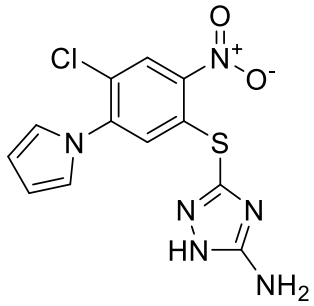
Product data sheet

MedKoo Cat#: 526838 Name: RH01687 CAS#: 302901-13-9 Chemical Formula: $C_{12}H_9ClN_6O_2S$ Exact Mass: 336.0196 Molecular Weight: 336.75	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
RH01687 is a potent β-cell protector.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	67	198.95
Ethanol	5	14.85

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.97 mL	14.85 mL	29.69 mL
5 mM	0.59 mL	2.97 mL	5.94 mL
10 mM	0.30 mL	1.48 mL	2.97 mL
50 mM	0.06 mL	0.30 mL	0.59 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Tran K, Li Y, Duan H, Arora D, Lim HY, Wang W. Identification of small molecules that protect pancreatic β cells against endoplasmic reticulum stress-induced cell death. ACS Chem Biol. 2014 Dec 19;9(12):2796-806. doi: 10.1021/cb500740d. Epub 2014 Oct 16. PMID: 25279668; PMCID: PMC4273981.

In vivo study

To be determined

7. Bioactivity
Biological target:

RH01687 exhibits β-cell-protective activities against ER stress. Endoplasmic reticulum (ER) stress plays an important role in the decline in pancreatic β cell function and mass observed in type 2 diabetes.

In vitro activity

This study shows that the compounds tested promote β cell survival by reducing the expression of key genes of the unfolded protein response and apoptosis, thus alleviating ER stress. Identification of small molecules that prevent ER stress-induced β cell dysfunction and death may provide a new modality for the treatment of diabetes.

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Reference: ACS Chem Biol. 2014 Dec 19;9(12):2796-806. http://www.probechem.com/products_RH01687.html

In vivo activity

To be determined

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.