

Product data sheet



MedKoo Cat#: 563484 Name: S3QEL-2 CAS#: 890888-12-7 Chemical Formula: C ₁₉ H ₂₅ N ₅ Exact Mass: 323.2110 Molecular Weight: 323.44	
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:

S3QEL-2 is a modulator of the retrograde signaling. It acts by strongly mitigating the oxidative stress-induced apoptosis that limits the yield of functional β -cells from intact islets.

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
DMF	10	30.92

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.09 mL	15.46 mL	30.92 mL
5 mM	0.62 mL	3.09 mL	6.18 mL
10 mM	0.31 mL	1.55 mL	3.09 mL
50 mM	0.06 mL	0.31 mL	0.62 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

- Orr AL, Vargas L, Turk CN, Baaten JE, Matzen JT, Dardov VJ, Attle SJ, Li J, Quackenbush DC, Goncalves RL, Perevoshchikova IV, Petrassi HM, Meeusen SL, Ainscow EK, Brand MD. Suppressors of superoxide production from mitochondrial complex III. Nat Chem Biol. 2015 Nov;11(11):834-6. doi: 10.1038/nchembio.1910. Epub 2015 Sep 14. PMID: 26368590; PMCID: PMC4618194.

In vivo study

To be determined

7. Bioactivity

Biological target:

S3QEL-2 inhibits site III_{Qo} superoxide production (IC₅₀ = 1.7 μ M) without altering normal bioenergetics function. It reduced the production of H₂O₂ during oxidation of glutamate plus malate to 25% of the control level. S3QEL-2 also protects against ROS-induced cell stress in pancreatic β -cells and decreases HIF-1 α induction in response to hypoxia.

In vitro activity

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S3QEL-2 was able to protect pancreatic β -cells during isolation and culture. S3QEL-2 enhanced both survival and function of primary pancreatic islets compared with equimolar amounts of EUK-134. S3QEL-2 is a cell-permeant, potent inhibitor of retrograde signaling mediated by superoxide from site IIIQo.

Reference: Nat Chem Biol. 2015 Nov;11(11):834-6. <https://pubmed.ncbi.nlm.nih.gov/26368590/>

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.