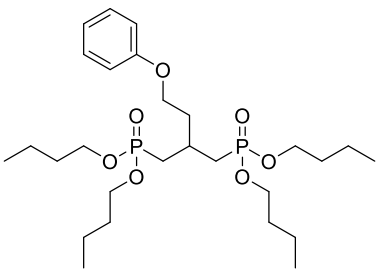


Product data sheet



MedKoo Cat#: 584232 Name: Belfosdil CAS: 103486-79-9 Chemical Formula: C ₂₇ H ₅₀ O ₇ P ₂ Exact Mass: 548.3032 Molecular Weight: 548.6375	
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:

Belfosdil, also known as BMY 21891 and SR 7037, is an antihypertensive calcium channel blocker.

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
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.82 mL	9.11 mL	18.23 mL
5 mM	0.36 mL	1.82 mL	3.65 mL
10 mM	0.18 mL	0.91 mL	1.82 mL
50 mM	0.04 mL	0.18 mL	0.36 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. Kennedy ED, Rizzuto R, Theler JM, Pralong WF, Bastianutto C, Pozzan T, Wollheim CB. Glucose-stimulated insulin secretion correlates with changes in mitochondrial and cytosolic Ca²⁺ in aequorin-expressing INS-1 cells. *J Clin Invest.* 1996 Dec 1;98(11):2524-38. doi: 10.1172/JCI119071. PMID: 8958215; PMCID: PMC507710.

2. Rutter GA, Theler JM, Murgia M, Wollheim CB, Pozzan T, Rizzuto R. Stimulated Ca²⁺ influx raises mitochondrial free Ca²⁺ to supramicromolar levels in a pancreatic beta-cell line. Possible role in glucose and agonist-induced insulin secretion. *J Biol Chem.* 1993 Oct 25;268(30):22385-90. PMID: 8226749.

In vivo study

1. Bosco D, Gonelle-Gispert C, Wollheim CB, Halban PA, Rouiller DG. Increased intracellular calcium is required for spreading of rat islet beta-cells on extracellular matrix. *Diabetes.* 2001 May;50(5):1039-46. doi: 10.2337/diabetes.50.5.1039. PMID: 11334406.

7. Bioactivity

Biological target:

Belfosdil is an antihypertensive calcium channel blocker.

In vitro activity

Product data sheet



Glucose and KCl, which depolarize the cell membrane, as well as the Ca²⁺-mobilizing agonist, carbachol (CCh), cause substantial increases in [Ca²⁺]_m which are associated with smaller rises in [Ca²⁺]_c. The L-type Ca²⁺-channel blocker, SR7037, abolished the effects of glucose and KCl while attenuating the CCh response.

Reference: J Clin Invest. 1996 Dec 1;98(11):2524-38. <https://pubmed.ncbi.nlm.nih.gov/8958215/>

In vivo activity

Purified rat beta-cells were attached to this matrix and incubated under various conditions known to affect [Ca²⁺]_i. The effect of glucose on beta-cell spreading was mimicked by 25 mmol/l KCl (which induces calcium influx) and inhibited by diazoxide (which impairs depolarization and calcium entry) and by the L-type Ca²⁺ channel blocker SR-7037.

Reference: Diabetes. 2001 May;50(5):1039-46. <https://pubmed.ncbi.nlm.nih.gov/11334406/>

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.