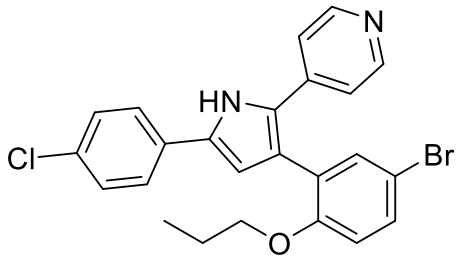
Product data sheet

MedKoo Cat#: 532054 Name: L-168049 CAS: 191034-25-0 Chemical Formula: $C_{24}H_{20}BrClN_2O$ Exact Mass: 466.0448 Molecular Weight: 467.791	
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:
L-168,049 is a non-peptidyl human glucagon receptor antagonist.

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	48.39	103.44
Ethanol	46.78	100.0

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.14 mL	10.69 mL	21.38 mL
5 mM	0.43 mL	2.14 mL	4.28 mL
10 mM	0.21 mL	1.07 mL	2.14 mL
50 mM	0.04 mL	0.21 mL	0.43 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. Osaka N, Kushima H, Mori Y, Saito T, Hiromura M, Terasaki M, Yashima H, Ohara M, Fukui T, Matsui T, Hirano T, Yamagishi SI. Anti-inflammatory and atheroprotective properties of glucagon. Diab Vasc Dis Res. 2020 May-Jun;17(5):1479164120965183. doi: 10.1177/1479164120965183. PMID: 33076703; PMCID: PMC7919216.

2. Khare P, Mangal P, Baboota RK, Jagtap S, Kumar V, Singh DP, Boparai RK, Sharma SS, Khardori R, Bhadada SK, Kondepudi KK, Chopra K, Bishnoi M. Involvement of Glucagon in Preventive Effect of Menthol Against High Fat Diet Induced Obesity in Mice. Front Pharmacol. 2018 Nov 16;9:1244. doi: 10.3389/fphar.2018.01244. PMID: 30505271; PMCID: PMC6250823.

In vivo study

1. Elson AE, Dotson CD, Egan JM, Munger SD. Glucagon signaling modulates sweet taste responsiveness. FASEB J. 2010 Oct;24(10):3960-9. doi: 10.1096/fj.10-158105. Epub 2010 Jun 14. PMID: 20547661; PMCID: PMC2996909.

7. Bioactivity
Biological target:

L-168049 is a potent, selective, orally active and non-competitive glucagon receptor antagonist with IC_{50}s of 3.7 nM, 63 nM, and 60 nM for human, murine, and canine glucagon receptors, respectively.

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In vitro activity

Glucagon receptor was expressed in THP-1 cells, and 1 nM glucagon decreased the ratio of interleukin-1β to interleukin-10 gene expression, which was significantly prevented by L-168049.

Reference: Diab Vasc Dis Res. 2020 May-Jun;17(5):1479164120965183. https://pubmed.ncbi.nlm.nih.gov/33076703/

In vivo activity

Taste responsiveness to sucrose in mice was similarly reduced upon acute and local disruption of glucagon signaling by the GlucR antagonist L-168,049.

Reference: FASEB J. 2010 Oct;24(10):3960-9. https://pubmed.ncbi.nlm.nih.gov/20547661/

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.