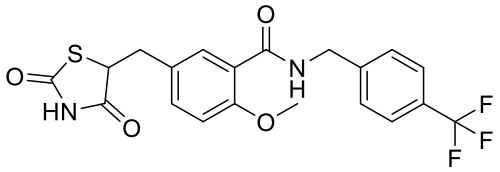
Product data sheet

MedKoo Cat#: 525417 Name: KRP297 CAS: 213252-19-8 Chemical Formula: $C_{20}H_{17}F_3N_2O_4S$ Exact Mass: 438.0861 Molecular Weight: 438.4212	
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:
KRP297, also known as MK-0767 and MK-767, is a PPAR agonist potentially for the treatment of type 2 diabetes and dyslipidemia. When administered to ob/ob mice, KRP-297 (0.3 to 10 mg/kg) decreased plasma glucose and insulin levels and improved the impaired insulin-stimulated 2DG uptake in soleus muscle in a dose-dependent manner. KRP-297 treatment is useful to prevent the development of diabetic syndromes in addition to ameliorating the impaired glucose transport in skeletal muscle.

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	10.0	22.81

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.28 mL	11.40 mL	22.81 mL
5 mM	0.46 mL	2.28 mL	4.56 mL
10 mM	0.23 mL	1.14 mL	2.28 mL
50 mM	0.05 mL	0.23 mL	0.46 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. Doebber TW, Kelly LJ, Zhou G, Meurer R, Biswas C, Li Y, Wu MS, Ippolito MC, Chao YS, Wang PR, Wright SD, Moller DE, Berger JP. MK-0767, a novel dual PPARalpha/gamma agonist, displays robust antihyperglycemic and hypolipidemic activities. Biochem Biophys Res Commun. 2004 May 28;318(2):323-8. doi: 10.1016/j.bbrc.2004.04.032. PMID: 15120604.

In vivo study

1. Murakami K, Tsunoda M, Ide T, Ohashi M, Mochizuki T. Amelioration by KRP-297, a new thiazolidinedione, of impaired glucose uptake in skeletal muscle from obese insulin-resistant animals. Metabolism. 1999 Nov;48(11):1450-4. doi: 10.1016/s0026-0495(99)90158-0. PMID: 10582556.
2. Murakami K, Tobe K, Ide T, Mochizuki T, Ohashi M, Akanuma Y, Yazaki Y, Kadowaki T. A novel insulin sensitizer acts as a coligand for peroxisome proliferator-activated receptor-alpha (PPAR-alpha) and PPAR-gamma: effect of PPAR-alpha activation on abnormal lipid metabolism in liver of Zucker fatty rats. Diabetes. 1998 Dec;47(12):1841-7. doi: 10.2337/diabetes.47.12.1841. PMID: 9836514.

7. Bioactivity
Biological target:

Product data sheet

KRP-297 is a PPARα and PPARγ agonist potentially for the treatment of type 2 diabetes and dyslipidemia.

In vitro activity

In cell-based assays, MK-0767 produced potent activation of human PPARgamma and PPARalpha with a gamma:alpha potency ratio of approximately.

Reference: Biochem Biophys Res Commun. 2004 May 28;318(2):323-8. https://pubmed.ncbi.nlm.nih.gov/15120604/

In vivo activity

When administered to ob/ob mice, KRP-297 (0.3 to 10 mg/kg) decreased plasma glucose and insulin levels and improved the impaired insulin-stimulated 2DG uptake in soleus muscle in a dose-dependent manner. Moreover, KRP-297 prevented severe hyperglycemia and the marked decrease in pancreatic insulin content in db/db mice.

Reference: Metabolism. 1999 Nov;48(11):1450-4. https://pubmed.ncbi.nlm.nih.gov/10582556/