

Product data sheet



MedKoo Cat#: 584862 Name: Ibroliipim CAS: 133208-93-2 Chemical Formula: C ₁₉ H ₂₀ BrN ₂ O ₄ P Exact Mass: 450.0344 Molecular Weight: 451.2568	
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:

Ibroliipim increases lipoprotein lipase activity with resulting elevation of high density lipoprotein cholesterol.

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	25.0	55.40
DMF:PBS (pH 7.2) (1:1)	0.5	1.11
DMSO	80.0	177.28
Ethanol	6.5	14.40

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.22 mL	11.08 mL	22.16 mL
5 mM	0.44 mL	2.22 mL	4.43 mL
10 mM	0.22 mL	1.11 mL	2.22 mL
50 mM	0.04 mL	0.22 mL	0.44 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

- Chen SG, Xiao J, Liu XH, Liu MM, Mo ZC, Yin K, Zhao GJ, Jiang J, Cui LB, Tan CZ, Yin WD, Tang CK. Ibroliipim increases ABCA1/G1 expression by the LXR α signaling pathway in THP-1 macrophage-derived foam cells. *Acta Pharmacol Sin.* 2010 Oct;31(10):1343-9. doi: 10.1038/aps.2010.166. Epub 2010 Sep 27. PMID: 20871621; PMCID: PMC4012897.
- Nishimura M, Imai T, Morioka Y, Kuribayashi S, Kamataki T, Naito S. Effects of NO-1886 (Ibroliipim), a lipoprotein lipase-promoting agent, on gene induction of cytochrome P450s, carboxylesterases, and sulfotransferases in primary cultures of human hepatocytes. *Drug Metab Pharmacokinet.* 2004 Dec;19(6):422-9. doi: 10.2133/dmpk.19.422. PMID: 15681896.

In vivo study

- Liu Y, Li H, Wang S, Yin W, Wang Z. Ibroliipim attenuates early-stage nephropathy in diet-induced diabetic minipigs: Focus on oxidative stress and fibrogenesis. *Biomed Pharmacother.* 2020 Sep;129:110321. doi: 10.1016/j.biopha.2020.110321. Epub 2020 Jun 12. PMID: 32535382.
- Liu Y, Wang ZB, Yin WD, Li QK, Cai MB, Yu J, Li HG, Zhang C, Zu XH. Preventive effect of Ibroliipim on suppressing lipid accumulation and increasing lipoprotein lipase in the kidneys of diet-induced diabetic minipigs. *Lipids Health Dis.* 2011 Jul 16;10:117. doi: 10.1186/1476-511X-10-117. PMID: 21762526; PMCID: PMC3155903.

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7. Bioactivity

Biological target:

Ibrolipim (NO-1886) is an orally active lipoprotein lipase (LPL)-promoting agent. Ibrolipim decreases plasma triglycerides, increases high-density lipoprotein cholesterol levels.

In vitro activity

Consistent with apoA-I, ibrolipim treatment also induced a significant increase of cholesterol efflux from foam cells to HDL in a dose- and time-dependent manner (Figure 1H and 1I). For directly measuring the cellular cholesterol content, ibrolipim-treated foam cells also showed a decrease compared with the control (HDL only, Table 3).

Reference: Acta Pharmacol Sin. 2010 Oct;31(10):1343-9. <https://pubmed.ncbi.nlm.nih.gov/20871621/>

In vivo activity

Immunohistochemistry analysis exhibited that Nox-4 was overexpressed in renal glomeruli, proximal tubules and distal convoluted tubules (brown staining) of the HSF-fed minipigs compared to the CD-fed minipigs (Fig. 5). In contrast, these increases were obviously attenuated by Ibrolipim treatment (Fig. 4, Fig. 5 and Table 3). These results suggested that Ibrolipim effectively inhibited HSF-fed stimulated Nox-4 activation and expression.

Reference: Biomed Pharmacother. 2020 Sep;129:110321. <https://pubmed.ncbi.nlm.nih.gov/32535382/>

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.