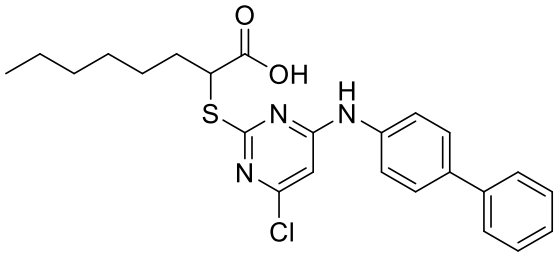
Product data sheet

MedKoo Cat#: 574739 Name: HZ-52 CAS: 1077626-51-7 Chemical Formula: $C_{24}H_{26}ClN_3O_2S$ Exact Mass: 455.1434 Molecular Weight: 456.001	
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:
HZ-52 is a potent, reversible inhibitor of 5-lipoxygenase that blocks leukotriene synthesis in polymorphonuclear leukocytes. HZ-52 also attenuates leukotriene B4 synthesis, prevents carrageenan-induced pleurisy, and protects against platelet-activating factor-induced shock.

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	30.0	65.79
DMF:PBS (pH 7.2) (1:9)	0.1	0.22
DMSO	20.0	43.86
Ethanol	10.0	21.93

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.19 mL	10.96 mL	21.93 mL
5 mM	0.44 mL	2.19 mL	4.39 mL
10 mM	0.22 mL	1.10 mL	2.19 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

1. Greiner C, Hörnig C, Rossi A, Pergola C, Zettl H, Schubert-Zsilavecz M, Steinhilber D, Sautebin L, Werz O. 2-(4-(Biphenyl-4-ylamino)-6-chloropyrimidin-2-ylthio)octanoic acid (HZ52)--a novel type of 5-lipoxygenase inhibitor with favourable molecular pharmacology and efficacy in vivo. Br J Pharmacol. 2011 Sep;164(2b):781-93. doi: 10.1111/j.1476-5381.2011.01451.x. PMID: 21506958; PMCID: PMC3188909.

In vivo study

1. Greiner C, Hörnig C, Rossi A, Pergola C, Zettl H, Schubert-Zsilavecz M, Steinhilber D, Sautebin L, Werz O. 2-(4-(Biphenyl-4-ylamino)-6-chloropyrimidin-2-ylthio)octanoic acid (HZ52)--a novel type of 5-lipoxygenase inhibitor with favourable molecular pharmacology and efficacy in vivo. Br J Pharmacol. 2011 Sep;164(2b):781-93. doi: 10.1111/j.1476-5381.2011.01451.x. PMID: 21506958; PMCID: PMC3188909.

7. Bioactivity

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Biological target:

A reversible inhibitor of 5-lipoxygenase.

In vitro activity

In accordance with this study's previous findings (Koeberle *et al*., 2008), HZ52 inhibited 5-LO product synthesis in human PMNL stimulated with the Ca^{2+} ionophore A23187 (2.5 μM) plus AA (20 μM) with an IC_{50} = 0.7 μM for both LTB_4 and 5-H(P)ETE (Figure 1B).

Reference: Br J Pharmacol. 2011 Sep;164(2b):781-93. https://pubmed.ncbi.nlm.nih.gov/21506958/

In vivo activity

HZ52, 1.5 $mg \cdot kg^{-1}$ i.p., prevented carrageenan-induced pleurisy accompanied by reduced LTB(4) levels and protected mice (10 $mg \cdot kg^{-1}$, i.p.) against PAF-induced shock.

Reference: Br J Pharmacol. 2011 Sep;164(2b):781-93. https://pubmed.ncbi.nlm.nih.gov/21506958/

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.