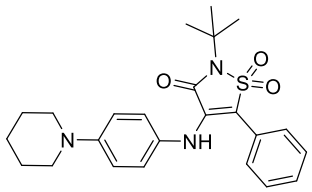
Product data sheet

MedKoo Cat#: 526922 Name: AZ876 CAS#: 898800-26-5 Chemical Formula: $C_{24}H_{29}N_3O_3S$ Exact Mass: 439.193 Molecular Weight: 439.574	
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:

AZ876, also known as AZ-876, is a liver X receptor agonist. AZ876 protects against pathological cardiac hypertrophy and fibrosis without lipogenic side effects. LXR activation with AZ876 attenuated this increase, and significantly reduced TAC-induced increases in heart weight, myocardial fibrosis, and cardiac dysfunction without affecting blood pressure. Liver X receptors (LXRs) transcriptionally regulate inflammation, metabolism, and immunity.

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	94.0	213.84

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.27 mL	11.37 mL	22.75 mL
5 mM	0.45 mL	2.27 mL	4.55 mL
10 mM	0.23 mL	1.14 mL	2.27 mL
50 mM	0.05 mL	0.23 mL	0.45 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

N/A

In vivo study

1. van der Hoorn J, Lindén D, Lindahl U, Bekkers M, Voskuilen M, Nilsson R, Oscarsson J, Lindstedt E, Princen H. Low dose of the liver X receptor agonist, AZ876, reduces atherosclerosis in APOE*3Leiden mice without affecting liver or plasma triglyceride levels. Br J Pharmacol. 2011 Apr;162(7):1553-63. doi: 10.1111/j.1476-5381.2010.01168.x. PMID: 21175581; PMCID: PMC3057293.
2. Cannon MV, Yu H, Candido WM, Dokter MM, Lindstedt EL, Silljé HH, van Gilst WH, de Boer RA. The liver X receptor agonist AZ876 protects against pathological cardiac hypertrophy and fibrosis without lipogenic side effects. Eur J Heart Fail. 2015 Mar;17(3):273-82. doi: 10.1002/ejhf.243. Epub 2015 Feb 11. PMID: 25684370.

7. Bioactivity

Biological target:

AZ876 is a potent and high-affinity LXR agonist.

In vitro activity

Product data sheet

N/A

In vivo activity

This study demonstrates that chronic administration of the LXR agonist AZ876 attenuated pathological cardiac hypertrophy in a murine model of chronic pressure overload without altering systemic blood pressure, implicating heart-specific effects. AZ876 treatment diminished myocardial fibrosis and suppressed induction of profibrotic gene expression. At the cellular level, both cardiac myocytes and fibroblasts, the two major cell types in the heart, expressed LXRs, and, furthermore, these cells were direct targets in AZ876-mediated cellular protection from hypertrophic and fibrotic stimuli. Overall, the salutary effects of AZ876 on cardiac remodelling were associated with a trend toward an improved functional outcome, which, importantly, occurred in the absence of adverse lipogenic side effects typical of current LXR agonists such as T09 and GW3965.

Reference: Eur J Heart Fail. 2015 Mar;17(3):273-82. https://onlinelibrary.wiley.com/doi/full/10.1002/ejhf.243