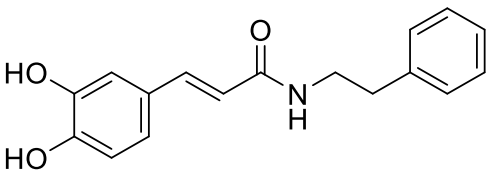
Product data sheet

MedKoo Cat#: 562381 Name: KS370G CAS: 105955-01-9 Chemical Formula: $C_{17}H_{17}NO_3$ Exact Mass: 283.1208 Molecular Weight: 283.327	
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:
KS370G is an inhibitor of UUO-induced renal fibrosis markers expression. It acts by attenuating collagen deposition in the obstructed kidney and significantly lowering the expression of renal inflammatory chemokines/adhesion molecules and monocyte cells marker.

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
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.53 mL	17.65 mL	35.29 mL
5 mM	0.71 mL	3.53 mL	7.06 mL
10 mM	0.35 mL	1.77 mL	3.53 mL
50 mM	0.07 mL	0.35 mL	0.71 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. Lu DY, Huang BR, Yeh WL, Lin HY, Huang SS, Liu YS, Kuo YH. Anti-neuroinflammatory effect of a novel caffeamide derivative, KS370G, in microglial cells. Mol Neurobiol. 2013 Dec;48(3):863-74. doi: 10.1007/s12035-013-8474-y. Epub 2013 Jun 26. PMID: 23801310.

In vivo study

1. Chuang ST, Kuo YH, Su MJ. KS370G, a caffeamide derivative, attenuates unilateral ureteral obstruction-induced renal fibrosis by the reduction of inflammation and oxidative stress in mice. Eur J Pharmacol. 2015 Mar 5;750:1-7. doi: 10.1016/j.ejphar.2015.01.020. Epub 2015 Jan 22. PMID: 25620133.
2. Chuang ST, Kuo YH, Su MJ. Antifibrotic effects of KS370G, a caffeamide derivative, in renal ischemia-reperfusion injured mice and renal tubular epithelial cells. Sci Rep. 2014 Jul 24;4:5814. doi: 10.1038/srep05814. PMID: 25056456; PMCID: PMC4108915.

7. Bioactivity
Biological target:

KS370G is an inhibitor of UUO-induced renal fibrosis markers expression.

In vitro activity

Product data sheet

KS370G significantly inhibited the release of nitric oxide (NO) and the expressions of inducible nitric oxide synthase (iNOS) and cyclooxygenase-2 (COX-2). Treatment with KS370G also induced heme oxygenase (HO)-1 and suppressors of cytokine signaling (SOCS)-3 expression in the microglia.

Reference: Mol Neurobiol. 2013 Dec;48(3):863-74. https://pubmed.ncbi.nlm.nih.gov/23801310/

In vivo activity

The results show that KS370G significantly attenuated collagen deposition in the obstructed murine kidney and inhibited UUO-induced renal fibrosis markers expression, including fibronectin, type I collagen, vimentin, and α-smooth muscle actin (α-SMA). KS370G significantly lowered the expression of renal inflammatory chemokines/adhesion molecules and monocyte cells marker (MCP-1, VCAM-1, ICAM-1 and CD11b).

Reference: Eur J Pharmacol. 2015 Mar 5;750:1-7. https://pubmed.ncbi.nlm.nih.gov/25620133/

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.