

# Product data sheet



MedKoo Cat#: 328331 Name: Sincalide CAS#: 25126-32-3 Chemical Formula: C <sub>49</sub> H <sub>62</sub> N <sub>10</sub> O <sub>16</sub> S <sub>3</sub> Exact Mass: 1142.3507 Molecular Weight: 1143.27	
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:

Sincalide, also known as CCK-8, is a drug used to treat cholecystitis. Sincalide is an octapeptide hormone present in the intestine and brain. When secreted from the gastric mucosa, it stimulates the release of bile from the gallbladder and digestive enzymes from the pancreas.

## 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	50	43.73
Water	50	43.73

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	0.87 mL	4.37 mL	8.75 mL
5 mM	0.17 mL	0.87 mL	1.75 mL
10 mM	0.09 mL	0.44 mL	0.87 mL
50 mM	0.02 mL	0.09 mL	0.17 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

- Zhang WH, Zhang ML, Jing WW, Xie B, Bi HT, Yu F, Cong B, Ma CL, Wen D. Inhibitory Effect of CCK-8 on Methamphetamine-Induced Apoptosis. *Fa Yi Xue Za Zhi*. 2021 Dec 25;37(6):796-805. English, Chinese. doi: 10.12116/j.issn.1004-5619.2021.310206. PMID: 35243844.
- Wang C, Yu H, Wei L, Zhang J, Hong M, Chen L, Dong X, Fu L. Protective effect of cholecystokinin octapeptide on angiotensin II-induced apoptosis in H9c2 cardiomyoblast cells. *J Cell Biochem*. 2020 Jul;121(7):3560-3569. doi: 10.1002/jcb.29639. Epub 2019 Dec 30. PMID: 31886572.

### In vivo study

- Wang C, Zhang C, Wu D, Guo L, Zhao F, Lv J, Fu L. Cholecystokinin octapeptide reduces myocardial fibrosis and improves cardiac remodeling in post myocardial infarction rats. *Int J Biochem Cell Biol*. 2020 Aug;125:105793. doi: 10.1016/j.biocel.2020.105793. Epub 2020 Jun 15. PMID: 32554056.
- Plaza A, Merino B, Del Olmo N, Ruiz-Gayo M. The cholecystokinin receptor agonist, CCK-8, induces adiponectin production in rat white adipose tissue. *Br J Pharmacol*. 2019 Aug;176(15):2678-2690. doi: 10.1111/bph.14690. Epub 2019 Jun 20. PMID: 31012948; PMCID: PMC6609540.

# Product data sheet



## 7. Bioactivity

### Biological target:

---

Sincalide can promote gallbladder contraction by injection and helps diagnose gallbladder and pancreas disorders. Sincalide can increase bile secretion, cause the gallbladder to contract and relax the sphincter of Oddi, resulting in bile drainage into the duodenum. Sincalide is a major bioactive segment of CCK that retains most of the biological activities of CCK.

### In vitro activity

---

Sincalide protects H9c2 cardiomyoblasts from Ang II-induced apoptosis partly via activation of the CCK1 receptor and the phosphatidylinositol-3 kinase/protein kinase B (PI3K/Akt) signaling pathway. Pretreatment of sincalide attenuated Ang II-induced cell toxicity and apoptosis, induced expression of p-Akt, p-bad, and Bcl-2, and decreased the expression levels of Bax and caspase-3.

Reference: J Cell Biochem. 2020 Jul;121(7):3560-3569. <https://pubmed.ncbi.nlm.nih.gov/31886572/>

### In vivo activity

---

Sincalide alleviated fibrosis in the noninfarcted regions and delayed the left ventricular remodeling and the progress of heart failure in a myocardial infarction rat model. Sincalide improved left ventricular function and attenuated myocardial fibrosis. Sincalide downregulated cardiac fibrosis genes in the left ventricle.

Reference: Int J Biochem Cell Biol. 2020 Aug;125:105793. <https://pubmed.ncbi.nlm.nih.gov/32554056/>

*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.*