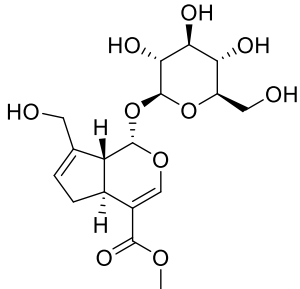


Product data sheet



MedKoo Cat#: 600139 Name: Geniposide CAS#: 24512-63-8 Chemical Formula: C ₁₇ H ₂₄ O ₁₀ Exact Mass: 388.13695 Molecular Weight: 388.369	
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:

Geniposide is a natural product isolated from the fruit of *Gerdenia*. It was found to induce increased activity of phase II detoxifying enzymes, inhibit tumor promotion, and induce apoptosis in rat C6 glioma cells. (Source: <http://www.lktlabs.com/products/Geniposide-816-12.html>).

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	15.0	38.62
DMSO	69.33	178.52
DMSO:PBS (pH 7.2) (1:2)	0.33	0.85
Water	64.0	164.79

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.57 mL	12.87 mL	25.75 mL
5 mM	0.52 mL	2.57 mL	5.15 mL
10 mM	0.26 mL	1.29 mL	2.57 mL
50 mM	0.05 mL	0.26 mL	0.52 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

- Li H, Yang DH, Zhang Y, Zheng F, Gao F, Sun J, Shi G. Geniposide suppresses NLRP3 inflammasome-mediated pyroptosis via the AMPK signaling pathway to mitigate myocardial ischemia/reperfusion injury. *Chin Med*. 2022 Jun 17;17(1):73. doi: 10.1186/s13020-022-00616-5. PMID: 35715805; PMCID: PMC9205109.
- Shen Y, Wang X, Shen X, Wang Y, Wang S, Zhang Y, Yao X, Xu Y, Sang M, Pan J, Qin Y, Zhou Q, Shen J. Geniposide Possesses the Protective Effect on Myocardial Injury by Inhibiting Oxidative Stress and Ferroptosis via Activation of the Grsf1/GPx4 Axis. *Front Pharmacol*. 2022 May 5;13:879870. doi: 10.3389/fphar.2022.879870. PMID: 35600863; PMCID: PMC9117627.

In vivo study

- Chen XY, Jiang WW, Liu YL, Ma ZX, Dai JQ. Anti-inflammatory action of geniposide promotes wound healing in diabetic rats. *Pharm Biol*. 2022 Dec;60(1):294-299. doi: 10.1080/13880209.2022.2030760. PMID: 35130118; PMCID: PMC8823683.

Product data sheet



2. Zheng Y, Xiao Y, Zhang D, Zhang S, Ouyang J, Li L, Shi W, Zhang R, Liu H, Jin Q, Chen Z, Xu D, Wu L. Geniposide Ameliorated Dexamethasone-Induced Cholesterol Accumulation in Osteoblasts by Mediating the GLP-1R/ABCA1 Axis. *Cells*. 2021 Dec 6;10(12):3424. doi: 10.3390/cells10123424. PMID: 34943934; PMCID: PMC8699812.

7. Bioactivity

Biological target:

Geniposide is an iridoid glucoside extracted from *Gardenia jasminoides* Ellis fruits; exhibits a variety of biological activities such as anti-diabetic, antioxidative, antiproliferative and neuroprotective activities.

In vitro activity

Considering the results that geniposide alleviates H/R injury in vitro and AMPK was also related to H/R-induced cardiac cell injury, geniposide protected against H/R injury in a dose-dependent way. In contrast, co-culture of Compound C with geniposide completely blocked these protective actions (Fig. 4C). Moreover, to determine whether geniposide attenuates H/R-induced mitochondrial dysfunction, MMP levels were increased.

Reference: *Chin Med*. 2022 Jun 17;17(1):73. <https://pubmed.ncbi.nlm.nih.gov/35715805/>

In vivo activity

In all diabetic rats, the blood glucose levels increased significantly. After oral administration of geniposide, the blood glucose level significantly decreased on day 7 after continuous administration compared to the model group (Figure 1, $p < 0.05$), whilst the level of HbA1c was not changed in treatment subgroups.

Reference: *Pharm Biol*. 2022 Dec;60(1):294-299. <https://pubmed.ncbi.nlm.nih.gov/35130118/>

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.