

# Product data sheet



MedKoo Cat#: 318601 Name: Quinethazone CAS: 73-49-4 Chemical Formula: C <sub>10</sub> H <sub>12</sub> ClN <sub>3</sub> O <sub>3</sub> S Exact Mass: 289.02879 Molecular Weight: 289.74	
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:

Quinethazone is a thiazide diuretic used to treat hypertension, and it is a weak inhibitor of carbonic anhydrase. Quinethazone is being used in hypertension research.

## 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	3.45 mL	17.26 mL	34.51 mL
5 mM	0.69	3.45 mL	6.90
10 Mm	0.35 mL	1.73	3.45 mL
50 Mm	0.07	0.34	0.69

## 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

- Zhang Z, Luo D, Xie J, Lin G, Zhou J, Liu W, Li H, Yi T, Su Z, Chen J. Octahydrocurcumin, a final hydrogenated metabolite of curcumin, possesses superior anti-tumor activity through induction of cellular apoptosis. *Food Funct.* 2018 Apr 25;9(4):2005-2014. doi: 10.1039/c7fo02048a. PMID: 29616245.
- Olesen, K. H., & Sigurd, B. (1971). The supra-additive natriuretic effect addition of quinethazone or bendroflumethiazide during long-term treatment with furosemide and spironolactone. Permutation trial tests in patients with congestive heart failure. *Acta Medica Scandinavica*, 190(3), 233–240. <https://doi.org/10.1111/j.0954-6820.1971.tb07423.x>

## 7. Bioactivity

Biological target:

Quinethazone inhibits active chloride reabsorption at the early distal tubule via the Na-Cl cotransporter, resulting in an increase in the excretion of sodium, chloride, and water. Quinethazone also inhibits sodium ion transport across the renal tubular epithelium. The antihypertensive mechanism of quinethazone is less well understood.

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## In vitro activity

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N/A

## In vivo activity

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The additive natriuretic effects of single doses of quinethazone or bendroflumethiazide have been studied in patients with advanced congestive heart failure receiving longterm treatment with furosemide and spironolactone daily. Since the combined effects of all three drugs involve a tendency to development of hypokalaemia, hypochloraemia and alkalosis, it is recommended that quinethazone or bendroflumethiazide use is combined with the administration of potassium chloride.

Reference: Acta Medica Scandinavica, 190(3), 233–240. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.0954-6820.1971.tb07423.x>

*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.*