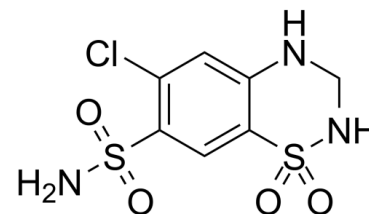


## Data Sheet

<b>Product Name:</b>	Hydrochlorothiazide
<b>Cat. No.:</b>	CS-2232
<b>CAS No.:</b>	58-93-5
<b>Molecular Formula:</b>	C7H8ClN3O4S2
<b>Molecular Weight:</b>	297.74
<b>Target:</b>	TGF-beta/Smad
<b>Pathway:</b>	Stem Cell/Wnt; TGF-beta/Smad
<b>Solubility:</b>	DMSO : 50 mg/mL (167.93 mM; Need ultrasonic)



### BIOLOGICAL ACTIVITY:

Hydrochlorothiazide is a diuretic drug of the thiazide class. Target: Others Hydrochlorothiazide belongs to thiazide class of diuretics. It reduces blood volume by acting on the kidneys to reduce sodium (Na) reabsorption in the distal convoluted tubule. The major site of action in the nephron appears on an electroneutral Na<sup>+</sup>-Cl co-transporter by competing for the chloride site on the transporter. By impairing Na transport in the distal convoluted tubule, hydrochlorothiazide induces a natriuresis and concomitant water loss. Thiazides increase the reabsorption of calcium in this segment in a manner unrelated to sodium transport. Additionally, by other mechanisms, Hydrochlorothiazide is believed to lower peripheral vascular resistance [1].

### References:

[1]. Duarte, J.D. and R.M. Cooper-DeHoff, Mechanisms for blood pressure lowering and metabolic effects of thiazide and thiazide-like diuretics. Expert Rev Cardiovasc Ther, 2010. 8(6): p. 793-802.

### CAIndexNames:

2H-1,2,4-Benzothiadiazine-7-sulfonamide, 6-chloro-3,4-dihydro-, 1,1-dioxide

### SMILES:

O=S(C1=C(C)C=C(C2=C1)NCNS2(=O)=O)(N)=O

**Caution: Product has not been fully validated for medical applications. For research use only.**

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