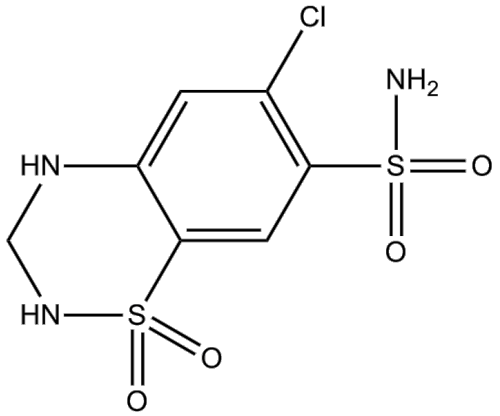
Product Data Sheet

Product Name: Hydrochlorothiazide
Cat. No.: GC17523

Chemical Properties

Cas. No.	58-93-5		
Chemical Name	6-chloro-1,1-dioxo-3,4-dihydro-2H-1λ6,2,4-benzothiadiazine-7-sulfonamide		
SMILES	C1NC2=CC(=C(C=C2S(=O)(=O)N1)S(=O)(=O)N)Cl		
Formula	C7H8ClN3O4S2	M.Wt	297.74
Solubility	≥ 10.7mg/mL in DMSO	Storage	Store at -20°C,unstable in solution, ready to use.
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Hydrochlorothiazide is a diuretic drug of the thiazide class. Target: OthersHydrochlorothiazide 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+-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.