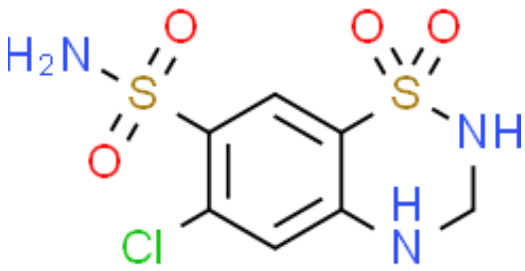


Product Data Sheet

Cas No.:	58-93-5	Cat. No:	PL10030
Product Name:	Hydrochlorothiazide		
Product synonym:	氢氯噻嗪;双氢氯噻嗪;双氢克尿噻;双氢氯噻秦;双氢氯消痰;6-氯-3,4-二氢-2H-1,2,4-苯并噻二嗪-7-磺酰胺-1,1-二氧化物;二氢氯噻;格列美脲;氢喹维林;氢氯噻;氢氯噻嗪 标准品;氢氯噻嗪标准品(JP);乳酸环丙沙星(双氢克尿酸);双氢克尿塞 标准品;双氢氯噻嗪 USP标准品;六氯-1,1二氧-1,2,3,4-4H-1,2,4-苯并噻二嗪-7-磺胺;双氢克尿塞;6-氯-7-磺酰胺-3,4-二氢-1,2,4-苯并噻二嗪-1,1-二氧化物		
Chemical name:	Hydrochlorothiazide		
MF:	C7H8CLN3O4S2	FW:	297.7391
Purity:	≥99%	Batch No.:	-
Storage:			
Structural formula:			
λmax:	-	Formulation:	-
Solubility :			
SMILES :	ClC1C([H])=C2C(=C([H])C=1S(N([H])([H])(=O)=O)S(N([H])C([H])([H])N2[H])(=O)=O		
InChI Code:	-		
InChI Key:			
WARNING This product is not for human or veterinary use.			

Product Description

Hydrochlorothiazide (HCTZ) 是一种口服有效的噻嗪类的利尿药，可抑制转化 TGF-β/Smad 信号通路。Hydrochlorothiazide 通过打开钙激活钾 (KCA) 通道具有直接的血管松弛作用。Hydrochlorothiazide 改善心脏功能，减少纤维化并具有降压作用。

生物活性	Hydrochlorothiazide (HCTZ), an orally active diuretic drug of the thiazide class, inhibits transforming TGF-β/Smad signaling pathway. Hydrochlorothiazide has direct vascular relaxant effects via opening of the calcium-activated potassium (KCA) channel. Hydrochlorothiazide improves cardiac function, reduces fibrosis and has antihypertensive effect.
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体外研究(In Vitro)	<p>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-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.</p> <p>has not independently confirmed the accuracy of these methods. They are for reference only.</p>
体内研究(In Vivo)	<p>Hydrochlorothiazide (HCTZ; orally by gavage; 12.5 mg/kg/d; 8 weeks) has improved cardiac function, reduced cardiac interstitial fibrosis and collagen volume fraction, decreased expression of AT1, TGF-β and Smad2 in the cardiac tissues in adult male Sprague Dawley rats. In addition, hydrochlorothiazide reduces plasma angiotensin II and aldosterone levels. Furthermore, hydrochlorothiazide inhibits angiotensin II-induced TGF-β1 and Smad2 protein expression in the neonatal rat ventricular fibroblasts.</p> <p>has not independently confirmed the accuracy of these methods. They are for reference only.</p>
包装储存	Powder -20°C 3 years; 4°C 2 years
溶解度数据	In Vitro: DMSO : 50 mg/mL (167.93 mM; Need ultrasonic)配制储备液