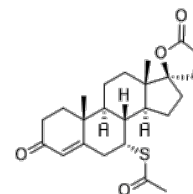


**Product Name** : Spironolactone  
**Cat. No.** : PC-28336  
**CAS No.** : 52-01-7  
**Molecular Formula** :  $C_{24}H_{32}O_4S$   
**Molecular Weight** : 416.58  
**Target** : Mineralocorticoid Receptor (MLR)  
**Solubility** : 10 mM in DMSO



### Biological Activity

Spironolactone is a potent aldosterone antagonist that acts on the aldosterone mineralocorticoid receptor (IC<sub>50</sub>=24 nM) and androgen receptor (IC<sub>50</sub>=77 nM), promotes podocyte autophagy and regulates pain.

Spironolactone improves hypertension-related vascular hypertrophy and remodeling by reducing angiotensin II (Ang II)-induced inflammation.

Spironolactone reduces aldosterone-induced vascular and soft tissue calcification through PIT1-dependent signaling, and alleviates vascular dysfunction in type II diabetic mice by reducing oxidative stress and restoring NO/GC signaling.

Spironolactone interferes with aldosterone biosynthesis in the adrenal cortex and inhibit voltage-dependent Ca<sup>2+</sup> channels to exert antihypertensive effects.

### References

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Jakob Voelkl, et al. J Clin Invest. 2013 Feb;123(2):812-22.

Ryuzea Miura, et al. J Pharmacol Sci. 2006 Jul;101(3):256-9.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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