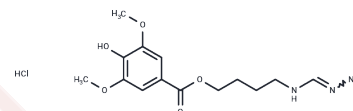


## Leonurine hydrochloride

## Chemical Properties

CAS No. :	24735-18-0
Formula:	C <sub>14</sub> H <sub>22</sub> ClN <sub>3</sub> O <sub>5</sub>
Molecular Weight:	347.79
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Leonurine hydrochloride (SCM-198 hydrochloride) , a major alkaloid compound extracted from Leonurus japonicas Houtt. (Labiatae), is considered to have antitumor roles.
Targets(IC50)	Autophagy,TLR
In vitro	The treatment of Leonurine hydrochloride (10-50?μM) for 24?h increases apoptotic ratio from 4.9% to 11.5-61.3%, respectively. The inhibition effect of Leonurine hydrochloride on H292 cells is related to the generation of ROS and the loss of MMP. Leonurine hydrochloride can increase the phosphorylation level of p38 and reduce Akt phosphorylation. Furthermore, Leonurine hydrochloride treatment increases the expression levels of caspase-3, caspase-9 and Bax/Bcl-2[1]. In RAW 264.7 cells and mouse bone marrow monocytes (BMMs), Leonurine hydrochloride suppresses RANKL-induced osteoclastogenesis and actin ring formation in a dose-dependent manner [2].
In vivo	Leonurine hydrochloride can elevate the ET level and ET/NO ratio in rats with up-regulated ETA mRNA expression and induced abortions, but there is no change in ETB mRNA[3]. Compared with the model group, Leonurine hydrochloride treatment markedly reduces the volume of bleeding and intrauterine residual, and markedly shortens the duration of bleeding. Leonurine hydrochloride also obviously reinforces the tension and frequency of uterine contractions [4].

## Solubility Information

Solubility	DMSO: 100 mg/mL (287.53 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (9.49 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8753 mL	14.3765 mL	28.753 mL
5 mM	0.5751 mL	2.8753 mL	5.7506 mL
10 mM	0.2875 mL	1.4376 mL	2.8753 mL
50 mM	0.0575 mL	0.2875 mL	0.5751 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Mao F, et al. Leonurine hydrochloride induces apoptosis of H292 lung cancer cell by a mitochondria-dependent pathway. *Pharm Biol.* 2015;53(11):1684-90.
- Yuan, F., Xu, R., Jiang, D., He, X., Su, Q., Jin, C., & Li, X. (2015). Leonurine hydrochloride inhibits osteoclastogenesis and prevents osteoporosis associated with estrogen deficiency by inhibiting the NF- $\kappa$ B and PI3K/Akt signaling pathways. *Bone*, 75, 128-137. doi: 10.1016/j.bone.2015.02.017
- Li X, et al. Effect of leonurine hydrochloride on endothelin and the endothelin receptor-mediated signal pathway in medically-induced incomplete abortion in rats. *Eur J Obstet Gynecol Reprod Biol.* 2013 Jul;169(2):299-303.
- Li X, et al. Effects of leonurine hydrochloride on medically induced incomplete abortion in early pregnancy rats. *Eur J Obstet Gynecol Reprod Biol.* 2011 Dec;159(2):375-80.

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