



# SZABO SCANDIC

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Laborgeräte & Service

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### Zuschläge

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### SZABO-SCANDIC HandelsgmbH

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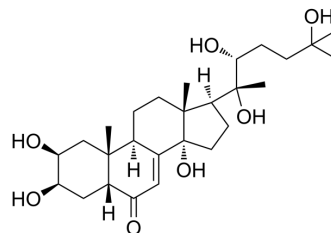
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## Crustecdysone

<b>Cat. No.:</b>	HY-N6979
<b>CAS No.:</b>	5289-74-7
<b>Molecular Formula:</b>	C <sub>27</sub> H <sub>44</sub> O <sub>7</sub>
<b>Molecular Weight:</b>	480.63
<b>Target:</b>	Caspase; Autophagy; Endogenous Metabolite
<b>Pathway:</b>	Apoptosis; Autophagy; Metabolic Enzyme/Protease
<b>Storage:</b>	4°C, protect from light * In solvent : -80°C, 1 year; -20°C, 6 months (protect from light)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (208.06 mM; Need ultrasonic)				
	H <sub>2</sub> O : 8.33 mg/mL (17.33 mM; ultrasonic and warming and heat to 60°C)				
		Mass			
	Solvent	Concentration	1 mg	5 mg	10 mg
<b>Preparing Stock Solutions</b>	1 mM		2.0806 mL	10.4030 mL	20.8060 mL
	5 mM		0.4161 mL	2.0806 mL	4.1612 mL
	10 mM		0.2081 mL	1.0403 mL	2.0806 mL
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (4.33 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.33 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.33 mM); Clear solution				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Crustecdysone (20-Hydroxyecdysone) is a naturally occurring ecdysteroid hormone isolated from <i>Serratura coronata</i> which controls the ecdysis (moulting) and metamorphosis of arthropods, it inhibits caspase activity and induces autophagy via the 20E nuclear receptor complex, EcR-USP <sup>[1]</sup> . Crustecdysone exhibits regulatory or protective roles in the cardiovascular system <sup>[2]</sup> . Crustecdysone is an active metabolite of <a href="#">Ecdysone</a> (HY-N0179) <sup>[3]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Human Endogenous Metabolite
<b>In Vitro</b>	Crustecdysone induces cell autophagy and caspase-3 activity in the remodeling fat body of <i>Drosophila</i> <sup>[1]</sup> .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

Crustecdysone (5 or 10 mg/kg; i.p., once daily, for 6 weeks) reduces blood pressure and prevents dilated cardiac hypertrophy in SHR rats<sup>[2]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male spontaneous hypertensive (SHR) rats <sup>[2]</sup>
Dosage:	5 or 10 mg/kg
Administration:	Intraperitoneal injection; 5 or 10 mg/kg , once daily, for 6 weeks
Result:	Decreased seminal vesicular weight, systolic pressure, and left ventricular dilatation caused by hypertension. Increased testicular weight and amount of $\beta$ -isoform.

## CUSTOMER VALIDATION

- Comp Biochem Physiol Part D Genomics Proteomics. 24 February 2022, 100981.
- Comp Biochem Physiol B Biochem Mol Biol. 2024 Mar 21:272:110967.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

- [1]. Liu H, et al. E93 predominantly transduces 20-hydroxyecdysone signaling to induce autophagy and caspase activity in Drosophila fat body. *Insect Biochem Mol Biol.* 2014 Feb;45:30-9.
- [2]. Phungphong S, et al. 20-Hydroxyecdysone attenuates cardiac remodeling in spontaneously hypertensive rats. *Steroids.* 2017 Oct;126:79-84.
- [3]. Minglei Lu, et al. Ecdysone Elicits Chronic Renal Impairment via Mineralocorticoid-Like Pathogenic Activities. *Cell Physiol Biochem.* 2018;49(4):1633-1645.

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

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