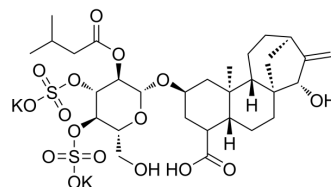


## Atractyloside potassium salt

<b>Cat. No.:</b>	HY-N1462
<b>CAS No.:</b>	102130-43-8
<b>Molecular Formula:</b>	C <sub>30</sub> H <sub>44</sub> K <sub>2</sub> O <sub>16</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	802.99
<b>Target:</b>	Chloride Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 250 mg/mL (311.34 mM; Need ultrasonic)  
H<sub>2</sub>O : 66.67 mg/mL (83.03 mM; Need ultrasonic)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.2453 mL	6.2267 mL	12.4535 mL
	5 mM	0.2491 mL	1.2453 mL	2.4907 mL
	10 mM	0.1245 mL	0.6227 mL	1.2453 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 50 mg/mL (62.27 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (2.59 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (2.59 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (2.59 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Atractyloside potassium salt is a toxic diterpenoid glycoside that can be isolated from the fruits of *Xanthium sibiricum*. Atractyloside potassium salt is a powerful and specific inhibitor of mitochondrial ADP/ATP transport. Atractyloside potassium salt inhibits chloride channels from mitochondrial membranes of rat heart<sup>[1][2][3]</sup>.

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## CUSTOMER VALIDATION

- Bioengineered. 2022 Jan;13(1):1320-1334.
- Membranes. 2023, 13(1), 63.

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## REFERENCES

- [1]. Nikles S, et al. Influence of Processing on the Content of Toxic Carboxyatractyloside and Atractyloside and the Microbiological Status of Xanthium sibiricum Fruits (Cang'erzi). *Planta Med.* 2015 Aug;81(12-13):1213-20.
- [2]. Lemasters JJ, et al. Phosphate dependence and atractyloside inhibition of mitochondrial oxidative phosphorylation. The ADP-ATP carrier is rate-limiting. *J Biol Chem.* 1979 Feb 25;254(4):1248-51.
- [3]. Malekova L, et al. Bongkreic acid and atractyloside inhibits chloride channels from mitochondrial membranes of rat heart. *Biochim Biophys Acta.* 2007 Jan;1767(1):31-44.
- [4]. Malekova L, et al. Bongkreic acid and atractyloside inhibits chloride channels from mitochondrial membranes of rat heart. *Biochim Biophys Acta.* 2007 Jan;1767(1):31-44.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA