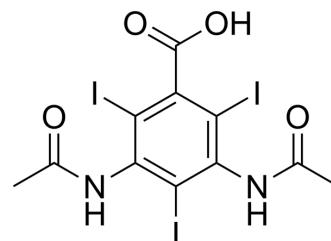


## Diatrizoic acid

<b>Cat. No.:</b>	HY-B0926		
<b>CAS No.:</b>	117-96-4		
<b>Molecular Formula:</b>	C <sub>11</sub> H <sub>9</sub> I <sub>3</sub> N <sub>2</sub> O <sub>4</sub>		
<b>Molecular Weight:</b>	613.91		
<b>Target:</b>	Apoptosis		
<b>Pathway:</b>	Apoptosis		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (162.89 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	1.6289 mL	8.1445 mL	16.2890 mL
		5 mM	0.3258 mL	1.6289 mL	3.2578 mL
10 mM		0.1629 mL	0.8145 mL	1.6289 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: ≥ 2.5 mg/mL (4.07 mM); Clear solution  2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.07 mM); Clear solution				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Diatrizoic acid (Diatrizoate) is an iodinated radiocontrast agent and has the potential for radiographic imaging of the airways. Diatrizoic acid induces mitochondrial turnover and oxidative stress, and activating apoptosis by dysregulating calcium <sup>[1][2]</sup> .
<b>In Vitro</b>	HK-2 cells are exposed to 0-30 mg I/mL Diatrizoic acid (Diatrizoate) or vehicle for 2-24 h. MTT and trypan blue exclusion indicate a decrease in mitochondrial and cell viability within 2 and 24 h, respectively <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	Diatrizoic acid is an iodinated radiocontrast agent. Histological examination of rat lung tissue shows no acute toxicity or inflammation after insufflation of Diatrizoic acid nanoparticle agglomerates. Diatrizoic acid nanoparticle agglomerates

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offers a promising radiocontrast agent for safe and effective lung visualization<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## PROTOCOL

### Animal Administration <sup>[1]</sup>

Female Sprague-Dawley rats (200 to 250 grams) are housed in temperature and humidity controlled rooms with free access to food and water and maintained on a 12 h light/dark cycle. Rats are anesthetized by a 67.5 mg/kg ketamine, 3.5 mg/kg xylazine and 0.66 mg/kg acepromazine subcutaneous cocktail. While under anesthesia, rats are placed on a heating pad to maintain a body temperature of 37°C. Diatrizoic acid nanoparticle agglomerates (10 mg) is administered by intratracheal insufflation using a dry powder insufflator. At the end of the experiment, the rats are euthanized by isoflurane inhalation overdose followed by harvest of major organs<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

- [1]. El-Gendy N, et al. Dry powdered aerosols of diatrizoic acid nanoparticle agglomerates as a lung contrast agent. *Int J Pharm.* 2010 May 31;391(1-2):305-12.
- [2]. Dakota B Ward, et al. Radiocontrast Agent Diatrizoic Acid Induces Mitophagy and Oxidative Stress via Calcium Dysregulation. *Int J Mol Sci.* 2019 Aug 21;20(17):4074.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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