



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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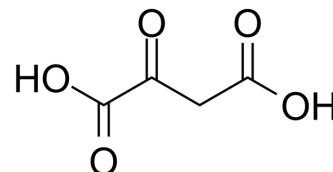
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## Oxaloacetic acid

<b>Cat. No.:</b>	HY-W010382	
<b>CAS No.:</b>	328-42-7	
<b>Molecular Formula:</b>	C <sub>4</sub> H <sub>4</sub> O <sub>5</sub>	
<b>Molecular Weight:</b>	132.07	
<b>Target:</b>	Endogenous Metabolite; Reactive Oxygen Species	
<b>Pathway:</b>	Metabolic Enzyme/Protease; Immunology/Inflammation; NF-κB	
<b>Storage:</b>	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : ≥ 100 mg/mL (757.17 mM)  
 DMSO : ≥ 100 mg/mL (757.17 mM)  
 \* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	7.5717 mL	37.8587 mL	75.7174 mL
	5 mM	1.5143 mL	7.5717 mL	15.1435 mL
	10 mM	0.7572 mL	3.7859 mL	7.5717 mL

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

#### In Vivo

1. Add each solvent one by one: PBS  
 Solubility: 100 mg/mL (757.17 mM); Clear solution; Need ultrasonic

### BIOLOGICAL ACTIVITY

#### Description

Oxaloacetic acid (2-Oxosuccinic acid) is a metabolic intermediate involved in several ways, such as citric acid cycle, gluconeogenesis, the urea cycle, the glyoxylate cycle, amino acid synthesis, and fatty acid synthesis, whereby Oxaloacetic acid facilitates the clearance of reactive oxygen species (ROS) and improves mitochondrial function<sup>[1][2][3]</sup>.

#### IC<sub>50</sub> & Target

Human Endogenous Metabolite

#### In Vivo

Oxaloacetic acid (10 mg/kg, i.p., daily for 3 d) significantly alleviates Paraquat (50 mg/kg, i.p.)-induced acute lung injury and improved the survival rate of Paraquat -poisoned mice<sup>[3]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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[1]. Li W, et al. Oxaloacetate acid ameliorates paraquat-induced acute lung injury by alleviating oxidative stress and mitochondrial dysfunction. *Front Pharmacol.* 2022 Oct 13;13:1029775.

[2]. F. L. Breusch. The fate of oxaloacetic acid in different organs. *Biochem J.* 1939 Nov; 33(11): 1757-1770.

[3]. Brian D Fink, et al. Oxaloacetic acid mediates ADP-dependent inhibition of mitochondrial complex II-driven respiration. *J Biol Chem.* 2018 Dec 21;293(51):19932-19941.

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

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