



SZABO SCANDIC

Part of Europa Biosite

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

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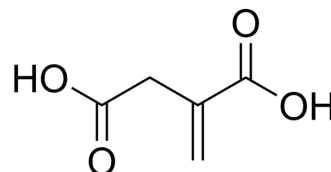
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Itaconic acid (Standard)

Cat. No.:	HY-Y0520R
CAS No.:	97-65-4
Molecular Formula:	C ₅ H ₆ O ₄
Molecular Weight:	130.1
Target:	Endogenous Metabolite; Ferroptosis
Pathway:	Metabolic Enzyme/Protease; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

H₂O : 27.78 mg/mL (213.53 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	7.6864 mL	38.4320 mL	76.8639 mL
	5 mM	1.5373 mL	7.6864 mL	15.3728 mL
	10 mM	0.7686 mL	3.8432 mL	7.6864 mL

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

BIOLOGICAL ACTIVITY

Description

Itaconic acid (Standard) is the analytical standard of Itaconic acid. This product is intended for research and analytical applications. Itaconic acid, a precursor of polymers, chemicals, and fuels, can be synthesized by many fungi. Itaconic acid also is a macrophage-specific metabolite. Itaconic acid mediates crosstalk between macrophage metabolism and peritoneal tumors. Itaconic acid has anti-inflammatory, anti-microbial and immunomodulatory effect^{[1][2][4][5]}.

REFERENCES

- [1]. Weiss JM, et, al. Itaconic acid mediates crosstalk between macrophage metabolism and peritoneal tumors. *J Clin Invest*. 2018 Aug 31;128(9):3794-3805.
- [2]. Zhao M, et, al. Itaconic acid production in microorganisms. *Biotechnol Lett*. 2018 Mar;40(3):455-464.
- [3]. Qu C, et al. Itaconic acid induces ferroptosis by activating ferritinophagy. *Biochem Biophys Res Commun*. 2021 Oct 25;583:56-62.
- [4]. Zhu X, et al. Itaconic acid exerts anti-inflammatory and antibacterial effects via promoting pentose phosphate pathway to produce ROS. *Sci Rep*. 2021 Sep 13;11(1):18173.

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

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