



SZABO SCANDIC

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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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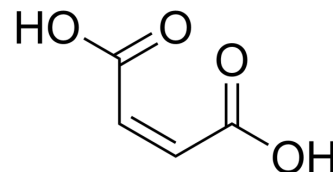
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Maleic Acid (Standard)

Cat. No.:	HY-Y0367R
CAS No.:	110-16-7
Molecular Formula:	C ₄ H ₄ O ₄
Molecular Weight:	116.07
Target:	Endogenous Metabolite; Bacterial
Pathway:	Metabolic Enzyme/Protease; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Maleic Acid (Standard) is the analytical standard of Maleic Acid. This product is intended for research and analytical applications. Maleic Acid is a Glutamate Decarboxylase (GAD) inhibitor of <i>E. coli</i> and <i>L. monocytogenes</i> . IC ₅₀ & Target: GAD ^[1] ^[2] . <i>In Vitro</i> : The MICs of WT 10403S for the acids (e.g., Maleic Acid) are 34 mM, 25 mM, 31 mM and 30 mM which correspond to pH values prior to growth of 4.84, 5.14, 5.32 and 5.02 respectively. Of all compounds tested, Maleic Acid is the least inhibitory despite acting at a lower pH (4.84). The most acid resistant (10403S) and the weakest (EGD-e) strain are challenged with 8.6 mM and 4.3 mM of each organic acid at pH 3 and 3.3 respectively. On both strains, Maleic Acid is the most bactericidal ^[2] .
IC ₅₀ & Target	GAD ^[1] ^[2] .

REFERENCES

- [1]. Fonda ML, et al. Glutamate decarboxylase. Substrate specificity and inhibition by carboxylic acids. *Biochemistry*. 1972 Mar 28;11(7):1304-9.
- [2]. Paudyal R, et al. A novel approach in acidic disinfection through inhibition of acid resistance mechanisms; Maleic acid-mediated inhibition of glutamate decarboxylase activity enhances acid sensitivity of *Listeria monocytogenes*. *Food Microbiol*. 2018 Feb;69:96-104.

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

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