



# 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

### SZABO-SCANDIC Handels GmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

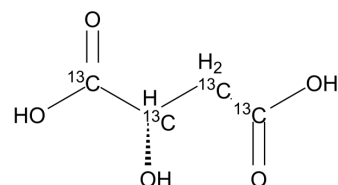
[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

## (S)-Malic acid-<sup>13</sup>C<sub>4</sub>

Cat. No.:	HY-Y1069S3
CAS No.:	150992-96-4
Molecular Formula:	<sup>13</sup> C <sub>4</sub> H <sub>6</sub> O <sub>5</sub>
Molecular Weight:	138.06
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	(S)-Malic acid- <sup>13</sup> C <sub>4</sub> is the <sup>13</sup> C labeled S-Malic acid (HY-Y1069)[1].
In Vitro	<p>Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs<sup>[1]</sup>.</p> <p>It is showed that ME is essential for (S)-2-Hydroxysuccinic acid (L-malic acid) utilization in <i>L. casei</i>. Furthermore, deletion of either the gene encoding the histidine kinase or the response regulator of the TC system resulted in the loss of the ability to grow on (S)-2-Hydroxysuccinic acid, thus indicating that the cognate TC system regulates and is essential for the expression of ME. Transcriptional analyses shows that expression of <i>maeE</i> is induced in the presence of (S)-2-Hydroxysuccinic acid and repressed by glucose, whereas TC system expression is induced by (S)-2-Hydroxysuccinic acid and is not repressed by glucose<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-222.

**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

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