Cambridge Isotope Laboratories, Inc.
isotope.com

RESEARCH PRODUCTS

TCA Cycle Mixtures

New!

For Qualification, Quantification, and Systems Biology

The tricarboxylic acid (TCA) cycle, also known as the Krebs or citric acid cycle, plays an essential role in central carbon and energy metabolism. The study of its intermediates, and its ancillary compounds, has proven pivotal in not only understanding their impact on metabolism but also in profiling their function in oncogenesis, inflammation, and other pathologies.

To aid the analysis of TCA-associated compounds in metabolic studies, **Cambridge Isotope Laboratories, Inc. (CIL) is pleased to offer stable isotope-labeled and unlabeled TCA cycle mixes**. These formulations are dried down and comprise a collection of TCA cycle compounds as well as offshoot metabolites (see composition table below). The mixes can be used in untargeted and targeted LC-MS methods for applications ranging from quality control to quantification. Please visit **isotope.com** for pricing and availability.

Catalog No.	Description	Unit Size
MSK-TCA1	TCA Cycle Standard Mix 1	1 vial
MSK-TCA2	TCA Cycle Standard Mix 2	1 vial
MSK-TCA	TCA Cycle Standard Mix Sets 1 and 2	2 × 1 vials
MSK-TCA1-US	TCA Cycle Standard Mix 1 (unlabeled)	1 vial
MSK-TCA2-US	TCA Cycle Standard Mix 2 (unlabeled)	1 vial
MSK-TCA-US	TCA Cycle Standard Mix Sets 1 and 2 (unlabeled)	2 × 1 vials

Table: Composition of the isotopically labeled TCA mixtures. Reconstituting each vial in 1 mL of solvent (e.g., water) will provide an equimolar concentration of 100 µM. Note that the unlabeled TCA mix compositions are equivalent.

Compounds	Label and Enrichment	Mix No.
Fumaric acid, disodium salt	$^{13}C_4$, 99%	1
DL-2-Hydroxyglutaric acid, disodium salt	$^{13}C_5$, 99%	1
α-Ketoglutaric acid, disodium salt	1,2,3,4-$^{13}C_4$, 99%	1
Malic acid, disodium salt	$^{13}C_4$, 99%	1
Sodium L-lactate	$^{13}C_3$, 98%	1
Sodium pyruvate	$^{13}C_3$, 99%	1
Succinic acid, disodium salt	$^{13}C_4$, 99%	1
Trisodium citrate	1,5,6-carboxy-$^{13}C_3$, 99%	1
L-Aspartic acid	$^{13}C_4$, 99%	2
L-Glutamic acid	$^{13}C_5$, 99%	2
Isocitric acid, trisodium salt	3,4,5,6-$^{13}C_4$, 98% (mixture of diastereomers)	2
Itaconic acid	$^{13}C_5$, 99%	2
Potassium phosphoenol pyruvate	2,3-$^{13}C_2$, 99%	2

Compounds can also be obtained individually; please inquire.

Chemical purity (CP) is 98% or greater, unless otherwise indicated. For research use only. Not for use in diagnostic procedures.

Cambridge Isotope Laboratories, Inc.

North America: 1.800.322.1174 cilsales@isotope.com | **International:** +1.978.749.8000 intlsales@isotope.com | fax: 1.978.749.2768 | isotope.com

MET_RSCH_TCAMIX (8/4/21)
Supersedes all previously published literature