

Aconitase Assay Kit ab83459

[15 References](#) [画像数 4](#)

製品の概要

製品名	Aconitase Assay Kit
検出方法	Colorimetric
サンプルの種類	Cell Lysate, Tissue Lysate
アッセイタイプ	Enzyme activity
全工程の試験時間	0h 40m
製品の概要	Aconitase Assay Kit ab83459 is a highly sensitive, simple, direct and HTS-ready colorimetric assay for measuring Aconitase activity in biological samples.

In the aconitase assay protocol, citrate is converted by aconitase into isocitrate, which is further processed resulting in a product that converts a nearly colorless probe into an intensely colored form with a max absorbance at 450nm.

Aconitase assay protocol summary:

- activate aconitase in samples by adding cysteine HCl and $(\text{NH}_4)_2\text{Fe}(\text{SO}_4)_2$
- add samples and standards to wells
- add reaction mix and incubate for 30-60 min
- analyze with a microplate reader

特記事項 This product is manufactured by BioVision, an Abcam company and was previously called K716 Aconitase Activity Colorimetric Assay Kit. K716-100 is the same size as the 100 test size of ab83459.

Aconitase (aconitate hydratase; EC 4.2.1.3) is an iron-sulfur protein containing an $[\text{Fe}_4\text{S}_4]^{2+}$ cluster that catalyzes the stereospecific isomerization of citrate to isocitrate via cis-aconitate in the tricarboxylic acid cycle, a non-redox-active process.

試験プラットフォーム Microplate reader

製品の特性

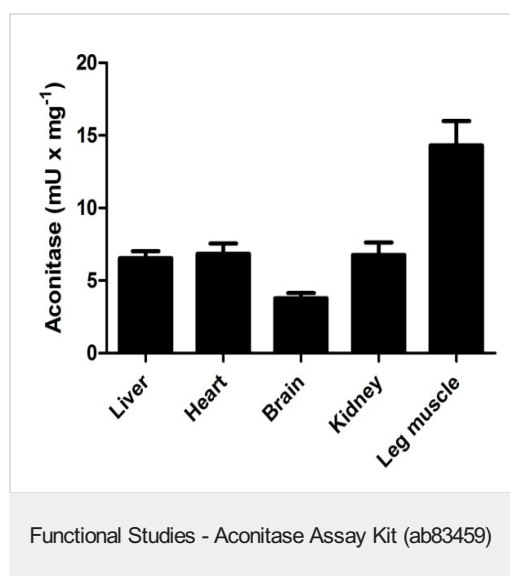
保存方法 Store at +4°C. Please refer to protocols.

内容	100 tests
Ferrous Ammonium Sulfate	1 vial
Assay Buffer VII	1 x 25ml
Cysteine Standard	1 vial
Developer Solution II	1 vial
Enzyme Mix VII	1 x 600µl
Isocitrate Standard	1 x 100µl
Substrate XI	1 vial

関連性 Aconitase (aconitate hydratase; EC 4.2.1.3) is an iron-sulfur protein containing an $[\text{Fe}_4\text{S}_4]^{2+}$ cluster that catalyzes the stereospecific isomerization of citrate to isocitrate via cis-aconitate in the tricarboxylic acid cycle, a non-redox-active process. Tissue contains two aconitases, a mitochondrial (m-) and a cytosolic (c-) aconitase. They are related, but distinctly different enzymes and are coded for on different chromosomes. Loss of aconitase activity in cells or other biological samples treated with prooxidants has been interpreted as a measure of oxidative damage.

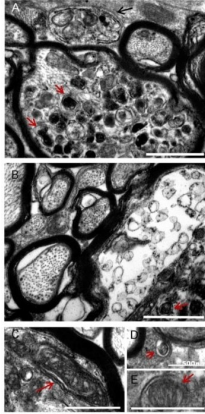
細胞内局在 ACO1: Cytoplasmic ACO2: Mitochondrial

画像



Aconitase measured in mouse tissue lysates showing quantity (mU) per mg of tested sample.

Protein concentration for samples varied from 1.5 mg/mL to 10 mg/mL. Samples were diluted 1-27 fold.

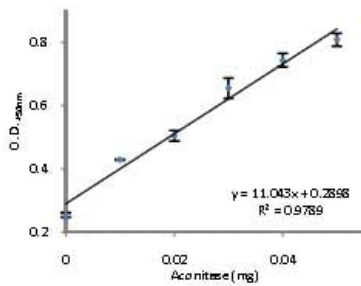


Cummins, Nadia et al.
BMC neuroscience vol. 14 98.
(2013)

Mitochondrial autophagic profiles in ON vulnerable to secondary degeneration +/- R/NIR-IT. Accumulations of mitochondrial autophagic profiles (red arrows) were seen especially at day 1 after PT (A, B). Occasionally, larger features reminiscent of autophagosomes were observed (A, black arrow) and parts of the nerve appeared highly abnormal (*, B).

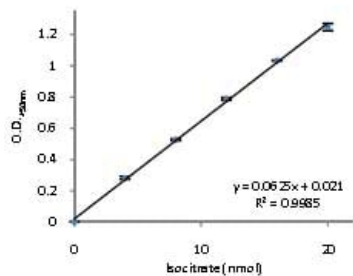
Functional Studies - Aconitase Assay Kit (ab83459)

Cummins, Nadia et al., BMC neuroscience?vol. 14 98.,
Fig 6, doi:10.1186/1471-2202-14-98



30 minute Aconitase sample test using ab83459.

Functional Studies - Aconitase Assay Kit (ab83459)



Isocitrate standard curve using ab83459.

Functional Studies - Aconitase Assay Kit (ab83459)

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