# abcam

## Product datasheet

# Citrate Synthase Activity Assay Kit ab119692

★★★★★ 1 Abreviews 28 References 画像数 2

#### 製品の概要

製品名

Citrate Synthase Activity Assay Kit

検出方法

Colorimetric

再現性

Intra-Assay(同時再現性)

サンプル	N	平均值	SD	CV%
1	3			5.45%

Inter-Assay(日差再現性)

サンプル	N	平均値	SD	CV%	
1	3			8.3%	

サンプルの種類 Cell culture extracts, Tissue Extracts

アッセイタイプ Enzyme activity

検出感度 1.56 µg/ml

検出範囲 1.56 μg/ml - 100 μg/ml

全工程の試験時間 3h 15m

種交差性 交差種: Cow, Human

非交差種: Mouse, Rat

製品の概要 Citrate Synthase Activity Assay Kit (ab119692) is used to determine mitochondrial citrate

synthase (CS) activity in a sample. The enzyme is immunocaptured within the wells of a

microplate, and activity is determined by recording color development of TNB, which is generated

in the reaction of citrate synthesis. The reaction product, TNB, absorbs at OD = 412 nm.

This kit immunocaptures only native citrate synthase from the samples. Using the immunocapture method allows the measurement of citrate synthase activity with simple sample preparation and no need for mitochondrial isolation.

This kit can be used with whole cell extracts or tissue homogenates.

Citrate synthase assay protocol summary:

- add samples to wells

- incubate for 3 hrs to capture enzyme
- wash with wash buffer
- add activity solution
- analyze with microplate reader for 5-30 min at 20s intervals

#### 特記事項

Citrate synthase (CS, O75390) is the initial enzyme of the tricarboxylic acid (TCA) cycle. This enzyme is a 51.7 kDa enzyme that catalyzes the reaction of 2 carbon acetyl CoA with 4 carbon oxaloacetate to form the 6 carbon citrate (EC 2.3.3.1). This enzyme is an exclusive marker of the mitochondrial matrix. Citrate synthase is found in nearly all cells capable of oxidative metabolism.

**Storage:** All components are shipped cold. 10X Reaction Reagent mixture is shipped lyophilized. Before use, rehydrate the reaction mixture by adding 1mL base buffer. Vortex the tube thoroughly to dissolve the lyophilized powder to prepare 10X Reaction solution. After hydration unused amounts of the 10X Reaction solution should be stored at -80°C for 6 months. Store all other components at 4°C. This kit is stable for 6 months from receipt.

#### 試験プラットフォーム

Microplate reader

#### 製品の特性

#### 保存方法

Please refer to protocols.

内容	1 x 96 tests
10X Blocking Buffer	1 x 6ml
10X Reaction Reagent	1 vial
1X Base Buffer	1 x 25ml
20X Buffer	1 x 20ml
CS Microplate	1 unit
Extraction Buffer (ab260490)	1 x 15ml

パスウェイ

Carbohydrate metabolism; tricarboxylic acid cycle; isocitrate from oxaloacetate: step 1/2.

配列類似性

Belongs to the citrate synthase family.

細胞内局在

Mitochondrion matrix.

#### 画像

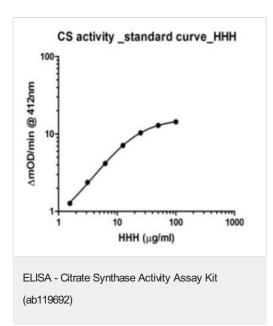


Figure 2. Example activity measurements from titrated of Human heart homogenate.

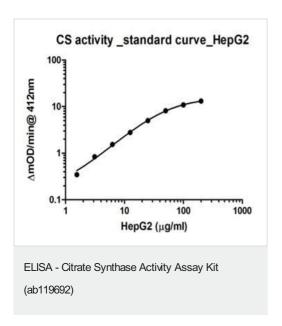


Figure 1. Example activity measurements from titrated HepG2 cells.

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