

Mouse/Rat Cytochrome C ELISA Kit ab210575

重组 SimpleStep ELISA

4 References **8 图像**

概述

产品名称 小鼠/大鼠Cytochrome C ELISA试剂盒

检测方法 Colorimetric

精确度 批次内

样品	n	Mean	SD	CV%
NIH3T3 ext	5			2.7%

批次间

样品	n	Mean	SD	CV%
NIH3T3 ext	3			5.3%

样品类型 Cell culture extracts, Tissue Extracts

检测类型 Sandwich (quantitative)

灵敏度 44 pg/ml

范围 487.4 pg/ml - 14000 pg/ml

回收率 特定样本回收率

样品类型	平均%	范围
Tissue Extracts	108	106% - 112%
Cell culture media	111	106% - 116%

检测时间 1h 30m

实验步骤 One step assay

种属反应性 与反应: Mouse, Rat

产品概述 Mouse/Rat Cytochrome C ELISA Kit (ab210575) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Cytochrome C protein in tissue extracts, cell culture media, and cell culture extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse/Rat Cytochrome C with 44 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

说明

Cytochrome C is 11 kDa mitochondrial intermembrane space electron carrier protein. The oxidized form of the cytochrome C heme group can accept an electron from the heme group of the cytochrome c1 subunit of cytochrome reductase. Cytochrome C then transfers this electron to the cytochrome oxidase complex, the final protein carrier in the mitochondrial electron-transport chain.

Cytochrome C also plays a role in apoptosis. Suppression of the anti-apoptotic members or activation of the pro-apoptotic members of the Bcl-2 family leads to altered mitochondrial outer membrane permeability resulting in release of cytochrome C into the cytosol. Binding of cytochrome C to Apaf-1 triggers the activation of caspase-9, which then accelerates apoptosis by activating other caspases.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

平台

Microplate (12 x 8 well strips)

性能

存放说明

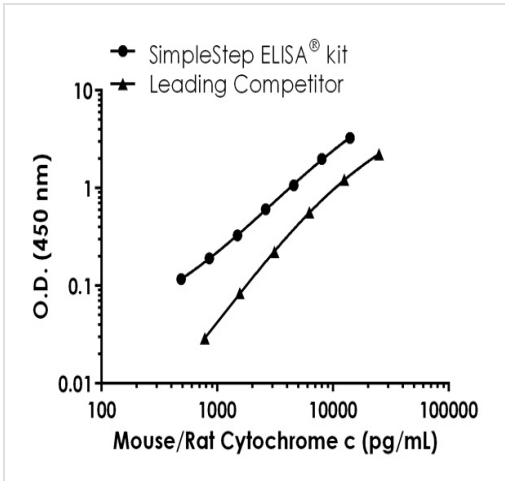
Store at +4°C. Please refer to protocols.

组件	1 x 96 tests
10X Mouse/Rat Cytochrome C Capture Antibody	1 x 600µl
10X Mouse/Rat Cytochrome C Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 5BR	1 x 6ml

组件	1 x 96 tests
Denaturant	1 x 500µl
Mouse Cytochrome C Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

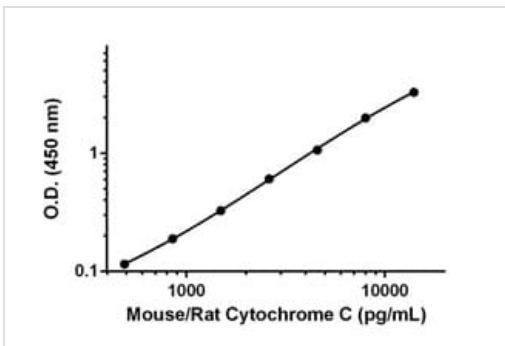
功能	<p>Electron carrier protein. The oxidized form of the cytochrome c heme group can accept an electron from the heme group of the cytochrome c1 subunit of cytochrome reductase. Cytochrome c then transfers this electron to the cytochrome oxidase complex, the final protein carrier in the mitochondrial electron-transport chain.</p> <p>Plays a role in apoptosis. Suppression of the anti-apoptotic members or activation of the pro-apoptotic members of the Bcl-2 family leads to altered mitochondrial membrane permeability resulting in release of cytochrome c into the cytosol. Binding of cytochrome c to Apaf-1 triggers the activation of caspase-9, which then accelerates apoptosis by activating other caspases.</p>
疾病相关	<p>Defects in CYCS are the cause of thrombocytopenia type 4 (THC4) [MIM:612004]; also known as autosomal dominant thrombocytopenia type 4. Thrombocytopenia is the presence of relatively few platelets in blood. THC4 is a non-syndromic form of thrombocytopenia. Clinical manifestations of thrombocytopenia are absent or mild. THC4 may be caused by dysregulated platelet formation.</p>
序列相似性	<p>Belongs to the cytochrome c family.</p>
翻译后修饰	<p>Binds 1 heme group per subunit.</p>
细胞定位	<p>Mitochondrion matrix.</p>

图片



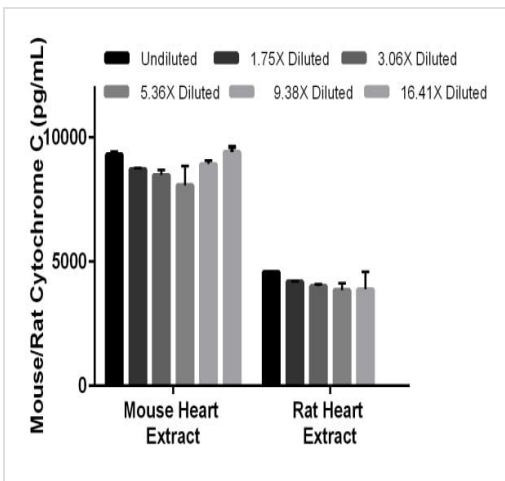
Mouse/Rat Cytochrome C standard curve comparison data.

Standard curve comparison between mouse/rat Cytochrome C SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows a 10-fold increase in sensitivity.



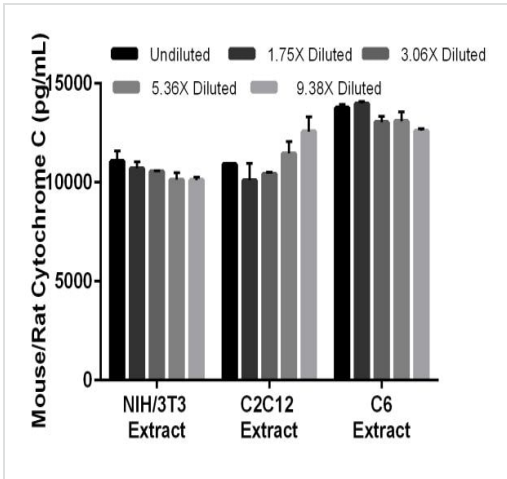
Example of mouse/rat Cytochrome C standard curve.

Background-subtracted data values (mean +/- SD) are graphed.



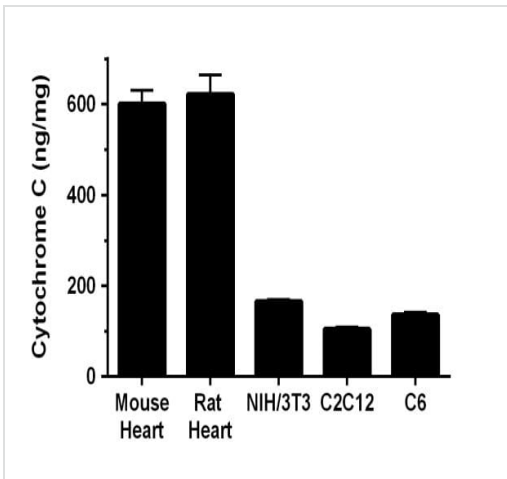
Interpolated concentrations of native Cytochrome C in mouse heart tissue extract samples based on 15 µg/mL extract load and in rat heart tissue extract samples based on 7 µg/mL extract load.

The concentrations of Cytochrome C were measured in duplicate and interpolated from the Cytochrome C standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Cytochrome C concentration was determined to be 8,822 pg/mL in mouse heart extract and 4,109 pg/mL in rat heart extract samples.



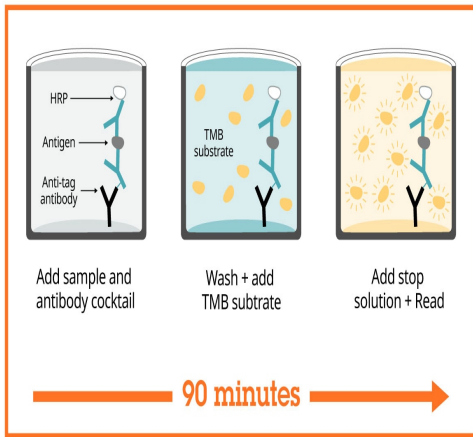
Interpolated concentrations of native Cytochrome C in mouse NIH/3T3 cell extract samples based on 65 µg/mL extract load, and mouse C2C12 and rat C6 cell extract samples based on 100 µg/mL extract.

The concentrations of Cytochrome C were measured in duplicate and interpolated from the Cytochrome C standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Cytochrome C concentration was determined to be 10,516 pg/mL in NIH/3T3 extract, 11,096 pg/mL in C2C12 extract, and 13,297 pg/mL in C6 extract.



Interpolated concentrations of native Cytochrome C in mouse and rat extract samples.

The concentrations of Cytochrome C were measured in three different dilutions in duplicate and interpolated from the Cytochrome C standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted in ng of Cytochrome C per mg of extract (mean +/-SD, n=3). Cytochrome C concentration was determined to be 601 ng/mg in mouse heart, 622 ng/mg in rat heart, 166 ng/mg in mouse NIH/3T3 cell, 105 ng/mg in mouse C2C12 cell and 136 ng/mg in rat C6 cell extract samples.



Sandwich ELISA - Mouse/Rat Cytochrome C ELISA Kit (ab210575)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Powered by recombinant antibodies

- Research with confidence**
Consistent and reproducible results
- Long-term and scalable supply**
Recombinant technology
- Success from the first experiment**
Confirmed specificity
- Ethical standards compliant**
Animal-free production

Sandwich ELISA - Mouse/Rat Cytochrome C ELISA Kit (ab210575)

To learn more about the advantages of recombinant antibodies see [here](#).

Get more done with SimpleStep ELISA

- Easy to use**
Single-wash 90-minute protocol
- Flexible**
Matched antibody pairs available
- Precision antibodies**
High sensitivity, specificity and reproducibility
- Scalable**
Now in 10-pack and 384-well formats

Sandwich ELISA - Mouse/Rat Cytochrome C ELISA Kit (ab210575)

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

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