

ATP synthase Enzyme Activity Microplate Assay Kit ab109714

★★★★★ 1 Abreviews   40 References   画像数 4

製品の概要

|          |  |
|----------|--|
| 製品名      | ATP synthase Enzyme Activity Microplate Assay Kit  |
| 検出方法     | Colorimetric   |
| サンプルの種類  | Cell culture extracts, Tissue, Suspension cells, Tissue Extracts, Cell Lysate, Purified mitochondria |
| アッセイタイプ  | Enzyme activity  |
| 全工程の試験時間 | 6h 00m   |
| 種交差性     | 交差種: Rat, Cow, Human<br>非交差種: Mouse  |

**製品の概要**

ATP synthase Enzyme Activity Microplate Assay Kit ab109714 is used to determine the activity of ATP synthase (Complex V) in a human or rat sample.

The ATP synthase enzyme is immunocaptured within the wells of the microplate and the enzyme activity is measured by monitoring the decrease in absorbance at 340 nm. The conversion of ATP to ADP by ATP synthase is coupled to the oxidation reaction of NADH to NAD<sup>+</sup> with a reduction in absorbance at 340 nm.

試験プラットフォーム      Microplate reader

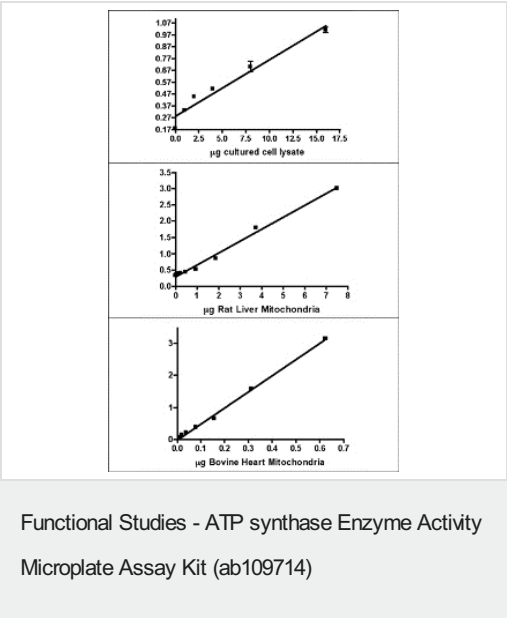
製品の特性

保存方法      Please refer to protocols.

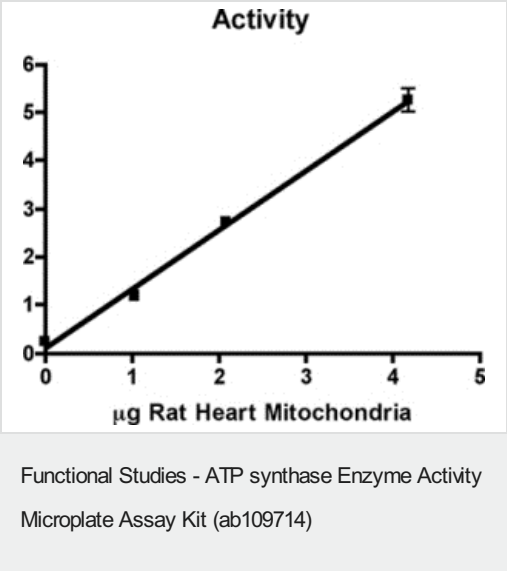
| 内容                                      | ラベル    | 96 tests |
|---|--------|----------|
| ATP synthase precoated Microtiter plate |        | 1 unit   |
| Buffer                                  | Tube 1 | 1 x 10ml |
| Detergent                               |        | 1 x 1ml  |
|   |        |          |

| 内容            | ラベル | 96 tests |
|---------------|-----|----------|
| Phospholipids |     | 1 x 6ml  |
| Reagent Mix   |     | 1 x 20ml |

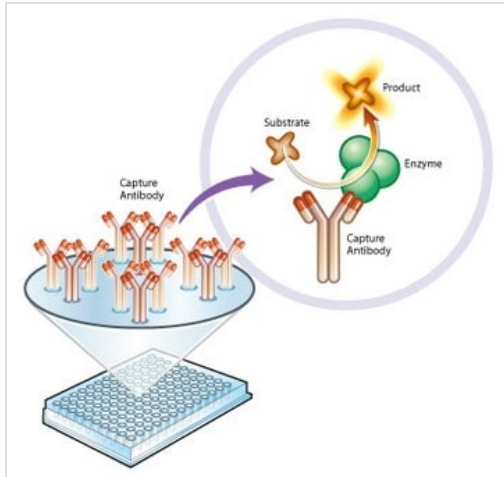
画像



Examples of activity/load relationships for cultured cell lysate, rat liver mitochondria, and bovine heart mitochondria.

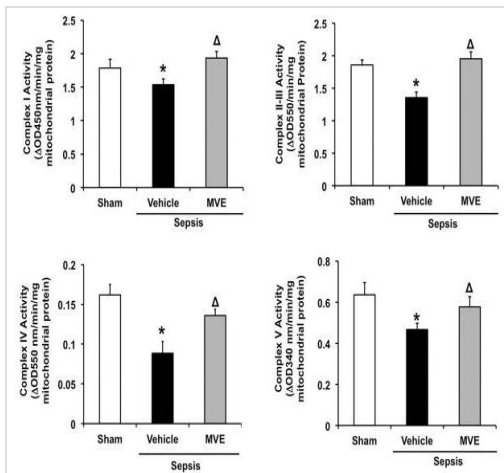


Functional study using ATP synthase Enzyme Activity Microplate Assay Kit (ab109714).



Principle of ATP synthase Enzyme Activity Microplate Assay Kit (ab109714).

Functional Studies - ATP synthase Enzyme Activity  
Microplate Assay Kit (ab109714)



Mitochondrial ROS dependent functional deficiency and structural impairment in cardiac mitochondria after sepsis.

Image courtesy of Yao X et al. PLoS One. 2015; 10(10): e0139416. doi: 10.1371/journal.pone.0139416.

Mitochondrial fractions from the heart tissue of Rats infected by *S. pneumoniae*, or given PBS sham control, were subjected to measurements of complex I-V activities. Complex I was measured with [ab109721](#) (top left), Complex II + III were measured using [ab109905](#) (top right), Complex IV was measured using [ab109911](#) (bottom left) and Complex V was measured using [ab109714](#) (bottom right).

Freshly isolated mitochondrial pellets were resuspended in PBS supplemented with 10% detergent provided in the kits. Protein concentrations of these mitochondrial lysates were estimated and 25 µg (for complex I, IV and V) or 100 µg (for complex II+III) mitochondrial protein was used per reaction. Enzyme activities were measured spectrophotometrically in triplicate and expressed as changes of absorbance per minute per mg protein.

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