

ATP synthase Enzyme Activity Microplate Assay Kit ab109714

★★★★★ [1 Abreviews](#) [40 References](#) [4 图像](#)

概述

产品名称	ATP synthase Enzyme Activity Microplate Assay试剂盒
检测方法	Colorimetric
样品类型	Cell culture extracts, Tissue, Suspension cells, Tissue Extracts, Cell Lysate, Purified mitochondria
检测类型	Enzyme activity
检测时间	6h 00m
种属反应性	与反应: Rat, Cow, Human 不与反应: Mouse
产品概述	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⁺ with a reduction in absorbance at 340 nm.

平台 Microplate reader

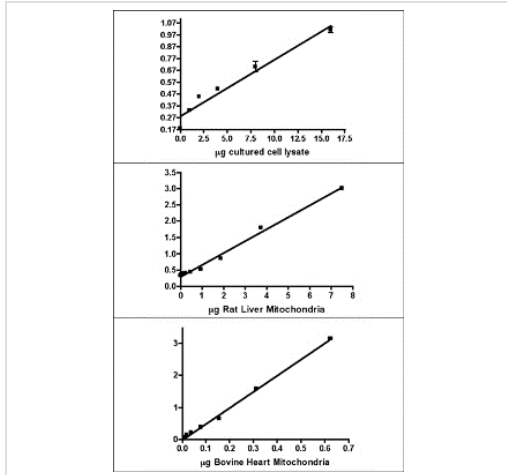
性能

存放说明 Please refer to protocols.

组件	标识符	96 tests
ATP synthase precoated Microtiter plate		1 unit
Buffer	Tube 1	1 x 10ml
Detergent		1 x 1ml

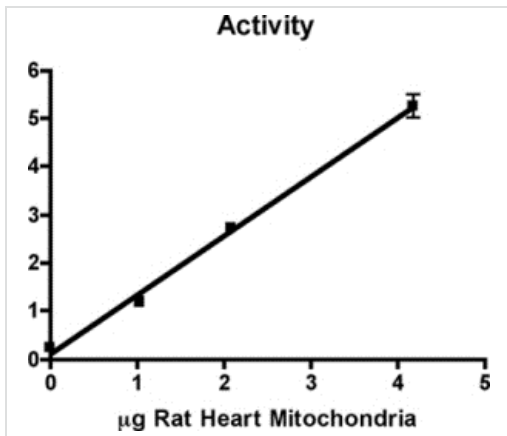
组件	标识符	96 tests
Phospholipids		1 x 6ml
Reagent Mix		1 x 20ml

图片



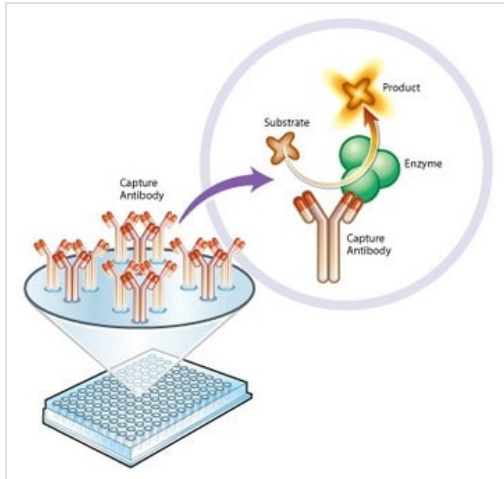
Examples of activity/load relationships for cultured cell lysate, rat liver mitochondria, and bovine heart mitochondria.

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



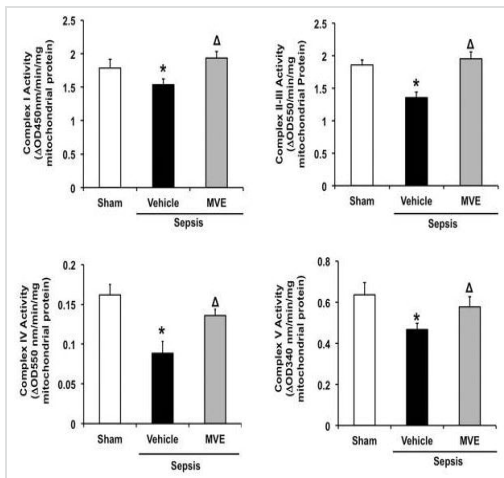
Functional study using ATP synthase Enzyme Activity Microplate Assay Kit (ab109714).

Functional Studies - 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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