abcam

Product datasheet

ATP synthase Specific Activity Microplate Assay Kit ab109716

9 References 画像数 8

製品の概要

製品名 ATP synthase Specific Activity Microplate Assay Kit

検出方法 Colorimetric

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

アッセイタイプ Enzyme activity

種交差性 交差種: Rat, Cow, Human

非交差種: Mouse

製品の概要 ATP Synthase Activity Assay Kit ab109716 is used to determine both the activity and quantity of

ATP synthase (Complex V) in a human or rat sample. The ratio of the two measurements

represents the enzyme's specific activity.

In the ATP synthase assay protocol, the ATP synthase enzyme is immunocaptured within the wells of a microplate. The conversion of ATP to ADP by ATP synthase is coupled to the oxidative reaction of NADH to NAD+. The formation of NAD+ results in a decrease in absorbance at 340 nm which is proportional to the amount of enzyme activity.

Subsequently, the quantity of ATP synthase is determined by adding an anti-ATP synthase antibody conjugated with alkaline phosphatase. Alkaline phosphatase acts on the substrate pNPP to form a yellow color (OD 405 nm) proportional to the amount of ATP synthase captured in the wells.

ATP synthase assay protocol summary:

- add samples to wells and incubate for 3 hrs to capture enzyme
- wash
- add lipid mix and incubate for 45 min
- add reaction mix
- analyze enzyme activity with microplate reader for 1-2 hrs at 1 min intervals
- empty wells and incubate with solution A for 1 hr
- wash
- add solution B and incubate for 1 hr
- wash
- add development solution
- analyze enzyme quantity with microplate reader for 30 min at 1 min intervals

特記事項

Store Buffer, Detergent, Detector Antibody, AP Label, AP Buffer, and the microplate at 4°C. Store

the Reagent Mix, AP Development Reagent and Lipid Mix at -20°C. For multiple experiments, the Reagent Mix and AP Development Reagent may be aliquoted and stored at -20°C, or at -80°C for long term storage.

試験プラットフォーム

Microplate reader

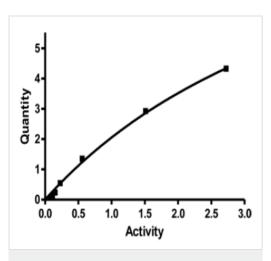
製品の特性

保存方法

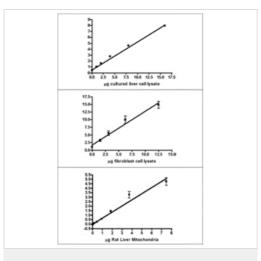
Please refer to protocols.

内容	ラベル	96 tests
AP ATP synthase Detector antibody		1 x 1ml
AP Buffer	Tube 2	1 x 20ml
AP Development Reagent		1 x 400µl
AP label 2500 X	Tube B	1 x 12µl
ATP synthase precoated Microtiter plate		1 unit
Buffer	Tube 1	1 x 15ml
Detergent		1 x 1ml
Phospholipids		1 x 6ml
Reagent Mix		1 x 20ml

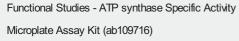
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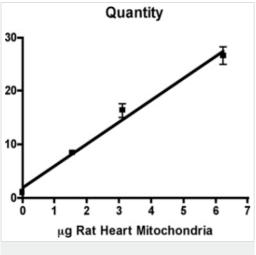


Functional Studies - ATP synthase Specific Activity Microplate Assay Kit (ab109716) By measuring both quantity and activity of ATP synthase in a sample, the ratio of the two parameters can be calculated. This is the relative specific activity and should be compared to the normal or control.

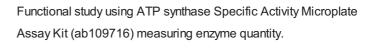


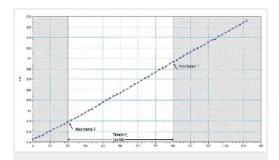
Examples of quantity/load relationships for cultured liver cell lysate, fibroblast lysate, and rat liver mitochondria.



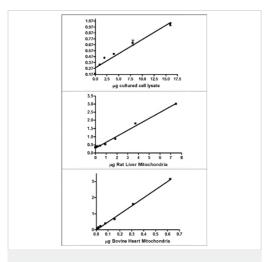


Functional Studies - ATP synthase Specific Activity Microplate Assay Kit (ab109716)

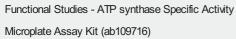


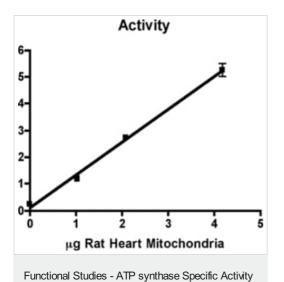


Functional Studies - ATP synthase Specific Activity Microplate Assay Kit (ab109716) Functional study using ATP synthase Specific Activity Microplate Assay Kit (ab109716).

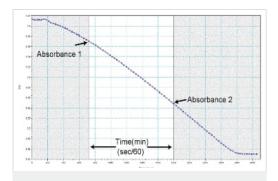


Examples of activity/load relationships for cultured cell lysate, rat liver mitochondria, and bovine heart mitochondria.





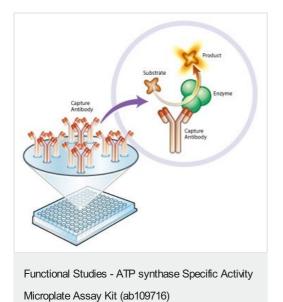
Functional study using ATP synthase Specific Activity Microplate Assay Kit (ab109716) measuring enzyme activity.



Microplate Assay Kit (ab109716)

Functional study using ATP synthase Specific Activity Microplate Assay Kit (ab109716)

Functional Studies - ATP synthase Specific Activity Microplate Assay Kit (ab109716)



Principle of ATP synthase Specific Activity Microplate Assay Kit (ab109716).

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