abcam

Product datasheet

Pyruvate dehydrogenase (PDH) Protein Quantity Dipstick Assay Kit ab109883

画像数 3

製品の概要

製品名	Pyruvate dehydrogenase (PDH) Protein Quantity Dipstick Assay Kit
サンプルの種類	Cell culture extracts, Tissue
アッセイタイプ	Sandwich (quantitative)
種交差性	**交差種:** Mouse, Rat, Cow, Human
製品の概要	ab109883 (MSP31) is used to quantify the activity of the PDH enzyme complex (pyruvate dehydrogenase) from human, bovine, mouse, and rat samples. PDH is present in all tissues; it plays a central role in metabolism as it is a key regulatory enzyme that functions at the junction between glycolysis and the tricarboxylic acid cycle. The PDH complex is composed of multiple copies of three catalytic component enzymes; pyruvate dehydrogenase or E1 (EC 1.2.4.1), dihydrolipoamide transacetylase or E2 (EC 2.3.1.12) and dihydrolipoamide dehydrogenase or E3 (EC 1.8.1.4). Inherent to its regulatory function, a number of other proteins regulate PDH activity. One of these, dihydrolipoamide dehydrogenase-binding protein (E3Bp) is necessary for the interaction of the E2 and E3 components. This dipstick assay kit utilizes two monoclonal antibodies. One recognizes the E2 enzyme (monoclonal antibody bound to the dipstick) and the other antibody (gold-conjugated) recognizes both the E2 and E3Bp components of the PDH complex. The signal intensity is measured by a dipstick reader or analyzed by other imaging systems such as a flatbed scanner. The kit is compatible with a variety of sample types (tissue or cell culture) from a number of different species (human, bovine, mouse, and rat).
特記事項	All components are stable in their provided containers at room temperature out of direct sunlight. After diluting the 10X Blocking Buffer to 2X, store at 4°C. For long-term storage, all buffers can be stored at 4°C.
アプリケーション	**適用あり:** Sandwich ELISA
試験プラットフォーム	Reagents

製品の特性

保存方法 Store at +4°C. Please refer to protocols.

内容	30 tests
Buffer B (10X Blocking solution)	1 x 0.4ml
Dipsticks	1 x 30 units
Extraction Buffer (ab260490)	1 x 15ml
Gold-conjugated antibody (dried in microplate wells)	1 x 30 tests
Wash buffer	1 x 2ml

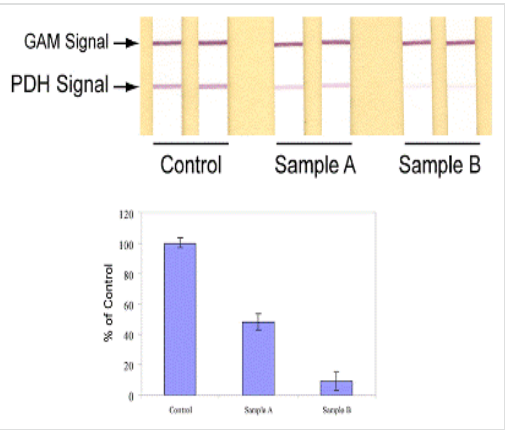
アプリケーション

The Abpromise guarantee Abpromise保証は、次のテスト済みアプリケーションにおけるab109883の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

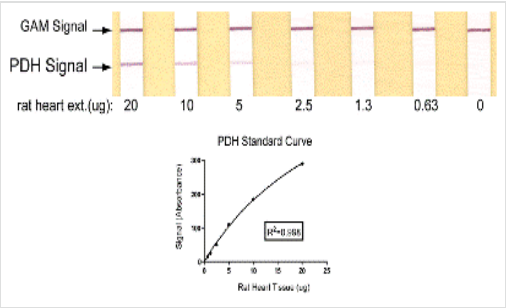
アプリケーション	Abreviews	特記事項
Sandwich ELISA		Use at an assay dependent dilution.

画像



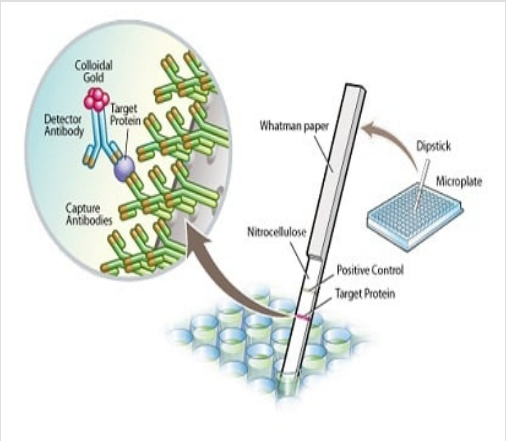
ELISA - Pyruvate dehydrogenase (PDH) Protein Quantity Dipstick Assay Kit (ab109883)

An example using ab109883 to quantify PDH levels using various concentration of rat tissue protein extract. Based on the above standard curve values, 18 µg (control - undiluted), 9 µg (sample A - diluted 1:2) and 1.8 µg (sample B - diluted 1:10) of extract were loaded to each dipstick. Two dipsticks per sample were run (typical intra-assay precision is 90-98%). Using GraphPad software, the signal intensity from the standard curve was interpolated and the quantity of PDH in samples A and B was determined. Based on the above analysis, the unknown samples, A and B, had 48% and 9% of control PDH levels, respectively.



ELISA - Pyruvate dehydrogenase (PDH) Protein Quantity Dipstick Assay Kit (ab109883)

An example using ab109883 to quantify PDH levels using various concentration of rat tissue protein extract. Shown is a 1:2 dilution series using a positive control sample. Approximately 7 to 8 dipsticks are suitable for covering the entire working range and the blank for background levels. In this example the dilution series starts with 20 µg of rat heart tissue extract. A one-site hyperbola line was generated for best-fit analysis using GraphPad.



Sandwich ELISA - Pyruvate dehydrogenase (PDH) Protein Quantity Dipstick Assay Kit (ab109883)

Dipstick assays use the well-established lateral flow concept, whereby capture antibodies are striped onto nitrocellulose membrane and a Whatman paper wicking pad draws the sample through the antibody bands. Detector antibodies, conjugated to gold, are dried in the wells of a 96-well plate. Sample is added to the well, the dipstick inserted, and within minutes the line for each target is revealed as the protein-detector antibody-gold complex binds with the capture antibodies. Multiplexing dipstick assays have multiple target protein lines. A positive control goat anti-mouse antibody line is included on all assays to ensure that adequate wicking of the sample occurred.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.co.jp/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors