Datasheet for ABIN6959657

SPTAN1 ELISA Kit

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1 Publication

Overview

Quantity:	96 tests
Target:	SPTAN1
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	1.56 ng/mL - 100 ng/mL
Minimum Detection Limit:	1.56 ng/mL
Application:	ELISA

Product Details

Purpose:	The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of SPTAN1 in mouse tissue homogenates, cell lysates, cell culture supernates.
Sample Type:	Cell Culture Supernatant, Cell Lysate, Tissue Homogenate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This assay has high sensitivity and excellent specificity for detection of Alpha-Fodrin (SPTAN1)
Sensitivity:	0.68 ng/mL
Components:	• Pre-coated, ready to use 96-well strip plate, flat buttom • Plate sealer for 96 wells • Reference Standard • Standard Diluent • Detection Reagent A

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Product Details

- Detection Reagent B
- Assay Diluent A
- Assay Diluent B
- Reagent Diluent (if Detection Reagent is lyophilized)
- TMB Substrate
- Stop Solution
- Wash Buffer (30 x concentrate)
- Instruction manual

Target Details

Target:	SPTAN1
Alternative Name:	Alpha-Fodrin (SPTAN1) (SPTAN1 Products)
Pathways:	Caspase Cascade in Apoptosis, Regulation of Actin Filament Polymerization

Application Details

Comment:	Information on standard material: The standard might be recombinant protein or natural protein, that will depend on the specific kit. Moreover, the expression system is E.coli or yeast or mammal cell. There is 0.05% proclin 300 in the standard as preservative. Information on reagents: The stop solution used in the kit is sulfuric acid with concentration of 1 mol/L. And the wash solution is TBS. The standard diluent contains 0.02 % sodium azide, assay diluent A and assay diluent B contain 0.01% sodium azide. Some kits can contain is BSA in them. Information on antibodies: The provided antibodies and their host vary in different kits.
Sample Volume:	100 µL
Assay Time:	3 h
Plate:	Pre-coated
Protocol:	1. Prepare all reagents, samples and standards, 2. Add 100µL standard or sample to each well. Incubate 1 hours at 37 °C, 3. Aspirate and add 100µL prepared Detection Reagent A. Incubate 1 hour at 37 °C, 4. Aspirate and wash 3 times,

5. Add 100μL prepared Detection Reagent B. Incubate 30 minutes at 37 °C,
6. Aspirate and wash 5 times,
7. Add 90μL Substrate Solution. Incubate 10-20 minutes at 37 °C,
8. Add 50μL Stop Solution. Read at 450nm immediately.

Reagent Preparation:

1. Bring all kit components and samples to room temperature (18-25 °C) before use. If the kit is not used up all at once, remove only the strips and reagents for the current experiment and leave the remaining strips and reagents in the desired condition.
2. **Standard** - Reconstitute the standard with the Standard Diluent, keep it at room temperature for 10 minutes and shake it gently (do not let it foam). Please prepare tubes with Standard Diluent and make a dilution series. Mix each tube thoroughly before the next transfer. The last tube with Standard Diluent is the blank as 0 mg/mL.
3. **Detection Reagent A** and **Detection Reagent B** - Spin or centrifuge the stock of Detection Reagent A and B briefly before use. Dilute to working concentration (1:100) with Assay Diluent A or B, respectively.
4. **Wash Solution** - Dilute 20 mL of Wash Solution Concentrate (30x) with 580 mL of deionized or distilled water to make 600 mL of Wash Solution (1x).
5. **TMB Substrate** - Aspirate the required amount of solution with sterile tip and do not return the residual solution back into the vial.

Note:

1. Serial dilution directly in the wells is not recommended.
2. Prepare standard within 15 minutes before assay. Do not dissolve the reagents directly at 37 °C.
3. Detection Reagent A and B are sticky solutions, so pipette them slowly to reduce volume errors.
4. Reconstitute Standard or working solutions of Detection Reagent A and B carefully according to instructions, avoiding foaming and mixing gently until crystals are completely dissolved. To minimize inaccuracy caused by pipetting, use small volumes and ensure pipettes are calibrated. It is recommended to aspirate more than 10 μL for one-time pipetting.
5. The reconstituted Standard, Detection Reagent A and B can only be used once.
6. When crystals have formed in the Wash Solution concentrate (30x), warm it to room temperature and mix gently until the crystals are completely dissolved.
7. Contaminated water or preparation containers affect the detection result.

Sample Preparation:

- It is recommended to use fresh samples without long storage, otherwise protein degradation and denaturationmay occur in these samples, leading to false results. Samples should therefore be stored for a short periodat 2 - 8 °C or aliquoted at -20 °C (≤1 month) or -80 °C (≤ 3 months). Repeated freeze-thawcycles should be avoided. Prior to assay, the frozen samples should be slowly thawed and centrifuged toremove precipitates.
- If the sample type is not specified in the instructions, a preliminary test is necessary to determinecompatibility with the kit.
- If a lysis buffer is used to prepare tissue homogenates or cell culture supernatant, there is a

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Application Details

possibilityof causing a deviation due to the introduced chemical substance.The recommended dilution factor is for reference only.

- Please estimate the concentration of the samples before performing the test. If the values are not in therange of the standard curve, the optimal sample dilution for the particular experiment has to be determined.Samples should then be diluted with PBS (pH =7.0-7.2).

Assay Precision:	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level of target were tested 20 times on one plate, respectively. Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level of target were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100 Intra-Assay: CV < 10% Inter-Assay: CV < 12%
Restrictions:	For Research Use only

Handling

Precaution of Use:	The Stop Solution suggested for use with this kit is an acid solution. Wear eye, hand, face, and clothing protection when using this material.
Storage:	4 °C/-20 °C
Storage Comment:	1. For unopened kit: All reagents should be stored according to the labels on the vials. The Standard, Detection Reagent A, Detection Reagent B, and 96-well Strip Plate should be stored at -20 °C upon receipt, while the other reagents should be stored at 4 °C. 2. For opened kits: the remaining reagents must be stored according to the above storage conditions. In addition, please return the unused wells to the foil pouch containing the desiccant and seal the foil pouch with the zipper. .
Expiry Date:	6 months

Publications

Product cited in:	Croyal, Kaabia, León, Ramin-Mangata, Baty, Fall, Billon-Crossouard, Aguesse, Hollstein, Sullivan, Nobecourt, Lambert, Krempf: "Fenofibrate decreases plasma ceramide in type 2 diabetes patients: A novel marker of CVD?" in: **Diabetes & metabolism**, Vol. 44, Issue 2, pp. 143-149, (2018) (PubMed). Awojoodu, Keegan, Lane, Zhang, Lynch, Platt, Botchwey: "Acid sphingomyelinase is activated in

sickle cell erythrocytes and contributes to inflammatory microparticle generation in SCD." in: **Blood**, Vol. 124, Issue 12, pp. 1941-50, (2014) (PubMed).