Datasheet for ABIN5608542

ATP1A2 ELISA Kit

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Overview

Quantity:	96 tests
Target:	ATP1A2
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	0.312 ng/mL - 20 ng/mL
Minimum Detection Limit:	0.312 ng/mL
Application:	ELISA

Product Details

Purpose:	The kit is a sandwich enzyme immunoassay for the in vitro quantitative measurement of ATP1a2 in human serum, plasma, tissue homogenates and other biological fluids.
Sample Type:	Plasma, Serum, Tissue Homogenate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This assay has high sensitivity and excellent specificity for detection of this index.
Sensitivity:	0.105 ng/mL
Components:	• Pre-coated, ready to use 96-well strip plate • Standard (freeze dried) • Standard Diluent • Detection Reagent A • Detection Reagent B

Product Details

- Assay Diluent A
- Assay Diluent B
- TMB
- Stop Solution
- Wash Buffer (30X)
- Plate sealer for 96 wells
- Instruction manual

Material not included:	1. Microplate reader with 450 ± 10nm filter. 2. Precision single or multi-channel pipettes and disposable tips. 3. Eppendorf Tubes for diluting samples. 4. Deionized or distilled water. 5. Absorbent paper for blotting the microtiter plate. 6. Container for Wash Solution.

Target Details

Target:	ATP1A2
Alternative Name:	ATPase, Na+/K+ Transporting Alpha 2 Polypeptide (ATP1a2) (ATP1A2 Products)
Background:	Alternative name: FHM2, MHP2, Migraine,Hemiplegic 2, Sodium pump subunit alpha-2, Sodium/potassium-transporting ATPase subunit alpha-2
Gene ID:	477
UniProt:	P50993
Pathways:	Thyroid Hormone Synthesis, Proton Transport, Ribonucleoside Biosynthetic Process

Application Details

Sample Volume:	100 µL
Assay Time:	1 - 4.5 h
Plate:	Pre-coated
Protocol:	1. Prepare all reagents, samples and standards 2. Add 100µL standard or sample to each well. Incubate 2 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 1 hour at 37°C 6. Aspirate and wash 5 times

Application Details

	7. Add 90μL Substrate Solution. Incubate 15-25 minutes at 37°C 8. Add 50μL Stop Solution. Read at 450nm immediately.
Assay Procedure:	The microtiter plate provided in this kit has been pre-coated with an antibody specific to the index. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to the index. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain the index, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of the index in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Assay Precision:	• Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level the index were tested 20 times on one plate, respectively. • Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level the index were tested on 3 different plates, 8 replicates in each plate. • CV(%) = SD/meanX100 • Intra-assay: CV&lt10% • Inter-assay: CV&lt12%
Restrictions:	For Research Use only

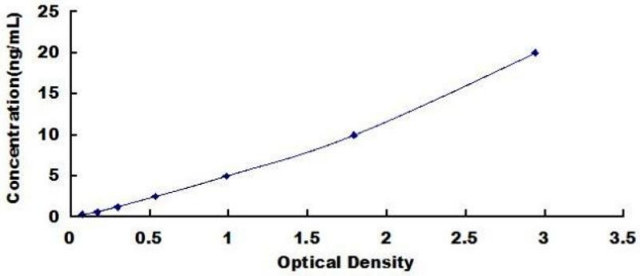
Handling

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.
Handling Advice:	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5 % within the expiration date under appropriate storage conditions. Note: To minimize unnecessary influences on the performance, operation procedures and lab conditions, especially room temperature, air humidity and incubator temperatures should be strictly regulated. It is also strongly suggested that the whole assay is performed by the same experimenter from the beginning to the end.
Storage:	4 °C,-20 °C
Storage Comment:	The Assay Plate, Standard, Detection Reagent A and Detection Reagent B should be stored at -20°C upon being received. After receiving the kit , Substrate should be always stored at 4°C.Other reagents are kept according to the labels on vials. But for long term storage, please keep the whole kit at -20°C. The unused strips should be kept in a sealed bag with the desiccant

Handling

	provided to minimize exposure to damp air. The test kit may be used throughout the expiration date of the kit (six months from the date of manufacture). Opened test kits will remain stable until the expiring date shown, provided it is stored as prescribed above.
Expiry Date:	12 months

Images



ELISA

Image 1. Typical Standard Curve