

Datasheet for ABIN1568429
Apelin ELISA Kit



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Overview

Quantity:	96 tests
Target:	Apelin (APLN)
Reactivity:	Mouse
Method Type:	Competition ELISA
Detection Range:	125 pg/mL - 8000 pg/mL
Minimum Detection Limit:	125 pg/mL
Application:	ELISA

Product Details

Purpose:	The kit is a competitive inhibition enzyme immunoassay technique for the in vitro quantitative measurement of APLN in mouse serum, plasma and other biological fluids.
Sample Type:	Plasma, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This assay has high sensitivity and excellent specificity for detection of this index.
Cross-Reactivity (Details):	No significant cross-reactivity or interference between this index and analogues was observed. Note: Limited by current skills and knowledge, it is impossible for us to complete the cross-reactivity detection between this index and all the analogues, therefore, cross reaction may still exist.
Sensitivity:	37.5 pg/mL

Product Details

Components:	<ul style="list-style-type: none">• Pre-coated, ready to use 96-well strip plate• Standard (freeze dried)• Standard Diluent• Detection Reagent A• Detection Reagent B• Assay Diluent A• Assay Diluent B• TMB• Stop Solution• Wash Buffer (30X)• Plate sealer for 96 wells• Instruction manual
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Material not included:	<ol style="list-style-type: none">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.
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Target Details

Target:	Apelin (APLN)
Alternative Name:	APLN (APLN Products)
Background:	Alternative name: XNPEP2, APEL, APJ endogenous ligand
Gene ID:	30878
UniProt:	Q9R0R4
Pathways:	Positive Regulation of Peptide Hormone Secretion , Hormone Activity , Feeding Behaviour

Application Details

Sample Volume:	50 µL
Assay Time:	1 - 4.5 h
Plate:	Pre-coated
Protocol:	<ol style="list-style-type: none">1. Prepare all reagents, samples and standards2. Add 50µL standard or sample to each well. <p>And then add 50µL prepared Detection Reagent A immediately.</p>

Application Details

- Shake and mix. Incubate 1 hour at 37°C
3. Aspirate and wash 3 times
4. Add 100µL prepared Detection Reagent B. Incubate 1 hour at 37°C
5. Aspirate and wash 5 times
6. Add 90µL Substrate Solution. Incubate 15-25 minutes at 37°C
7. Add 50µL Stop Solution. Read at 450 nm immediately.

Assay Procedure: This assay employs the competitive inhibition enzyme immunoassay technique. A monoclonal antibody specific to the index has been pre-coated onto a microplate. A competitive inhibition reaction is launched between biotin labeled the index and unlabeled the index (Standards or samples) with the pre-coated antibody specific to the index. After incubation the unbound conjugate is washed off. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. The amount of bound HRP conjugate is reverse proportional to the concentration of the index in the sample. After addition of the substrate solution, the intensity of color developed is reverse proportional to the concentration of the index in the sample.

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- 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.
 - $CV(\%) = SD/mean \times 100$
 - 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.

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

Handling

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 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