Datasheet for ABIN6963421

Corticosterone ELISA Kit

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Overview

Quantity:	96 tests
Target:	Corticosterone (CORT)
Reactivity:	Rat, Chicken
Method Type:	Competition ELISA
Detection Range:	0.39 ng/mL - 25 ng/mL
Minimum Detection Limit:	0.39 ng/mL
Application:	ELISA

Product Details

Purpose:	The kit is a competitive inhibition enzyme immunoassay technique for the in vitro quantitative measurement in various sample types.
Sample Type:	Plasma, Serum, Urine
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This kit recognizes Rat and Chicken CORT in samples. No significant cross-reactivity or interference between CORT and analogues was observed.
Sensitivity:	0.24 ng/mL
Components:	• Pre-coated, ready to use 96-well strip plate, flat buttom • Plate sealer for 96 wells • Reference Standard • Reference Standard & Sample Diluent

Product Details

- Biotinylated Detection Antibody (100 x concentrate)
- HRP Conjugate (100 x concentrate)
- Biotinylated Detection Antibody Diluent
- HRP Conjugate Diluent
- Substrate Reagent
- Stop Solution
- Wash Buffer (25 x concentrate)
- Instruction manual

Target Details

Target:	Corticosterone (CORT)
Alternative Name:	Corticosterone (CORT Products)
Target Type:	Hormone

Application Details

Sample Volume:	50 µL
Assay Time:	2 h
Plate:	Pre-coated
Protocol:	1. Add 50 µL standard or sample to each well. Immediately add 50 µL Biotinylated Detection Antibody to each well. Incubate for 45 min at 37 °C. 2. Aspirate and wash 3 times. 3. Add 100 µL HRP Conjugate to each well. Incubate for 30 min at 37 °C. 4. Aspirate and wash 5 times. 5. Add 90 µL Substrate Reagent. Incubate 15 min at 37 °C. 6. Add 50 µL Stop Solution. Read at 450 nm immediately. 7. Calculation of results.
Reagent Preparation:	1. Bring all reagents to room temperature (18~25 °C) before use. Follow the Microplate reader manual for set-up and preheat it for 15 min before OD measurement. 2. Wash Buffer: Dilute 30 mL of Concentrated Wash Buffer with 720 mL of deionized or distilled water to prepare 750 mL of Wash Buffer. Note: if crystals have formed in the concentrate, warm it in a 40 °Cwater bath and mix it gently until the crystals have completely dissolved. 3. Standard working solution: Centrifuge the standard at 10,000xg for 1 min. Add 1.0 mL of Reference Standard &Sample Diluent, let it stand for 10 min and invert it gently several times. After it dissolves fully, mix it thoroughly with a pipette. This reconstitution produces a working solution of 25 ng/mL. Then make serial dilutions as needed. The recommended dilution gradient is as follows: 25, 12.5, 6.25, 3.12, 1.56, 0.78, 0.39, 0 ng/mL. Dilution method:

Application Details

	Take 7 EP tubes, add 500 µLof Reference Standard & Sample Diluent to each tube. Pipette 500 µLof the 25 ng/mL working solution to the first tube and mix up to produce a 12.5 ng/mL working solution. Pipette 500 µLof the solution from the former tube to the latter one according to this step. The illustration below is for reference. Note: the last tube is regarded as a blank. Don't pipette solution into it from the former tube. 4. Biotinylated Detection Antibody working solution: Calculate the required amount before the experiment (50 µL/well). In preparation, slightly more than calculated should be prepared. Centrifuge the stock tube before use, dilute the 100x Concentrated Biotinylated Detection Antibody to 1xworking solution with Biotinylated Detection Antibody Diluent. 5. Concentrated HRP Conjugate working solution: Calculate the required amount before the experiment (100 µL/well). In preparation, slightly more than calculated should be prepared. Centrifuge the stock tube before use, dilute the 100xConcentrated HRP Conjugate to 1xworking solution with Concentrated HRP Conjugate Diluent.
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 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 rat samples with low, mid range and high level CORT were tested 20 times on one plate, respectively. Inter-assay Precision (Precision between assays): 3 rat samples with low, mid range and high level CORT were tested on 3 different plates, 20 replicates in each plate. Both intra-CV and inter-CV are < 10 %.
Restrictions:	For Research Use only

Handling

Storage:	4 °C,-20 °C
Storage Comment:	1. For unopened kit: All reagents should be stored according to the labels on the vials, so they are stable up to 6 months after receipt of the kit. The reference standard, biotinylated detection antibody, HRP conjugate, and 96-well strip plate should be stored at -20 °C upon

Handling

	receipt, while the other reagents should be stored at 4 °C. 2. For used kits: When the kit is used, 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:

Al-Hakeim, Najm, Al-Dujaili, Maes: "Major Depression in Children with Transfusion-Dependent Thalassemia Is Strongly Associated with the Combined Effects of Blood Transfusion Rate, Iron Overload, and Increased Pro-inflammatory Cytokines." in: **Neurotoxicity research**, Vol. 38, Issue 1, pp. 228-241, (2021) (PubMed).

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Atwany, Hashemi, Jayakumar, Nagarkatti, Nagarkatti, Hassuneh: "Induction of CD4+CD25+ Regulatory T Cells from In Vitro Grown Human Mononuclear Cells by Sparteine Sulfate and Harpagoside." in: **Biology**, Vol. 9, Issue 8, (2020) (PubMed).

Liu, Wang, Song, Sun, Hong, Pothukuchi, Xu: "Systematically transplanted human gingiva-derived mesenchymal stem cells regulate lipid metabolism and inflammation in hyperlipidemic mice with periodontitis." in: **Experimental and therapeutic medicine**, Vol. 19, Issue 1, pp. 672-682, (2020) (PubMed).

Zheng, Sun, Xu, Pan, Zhang, Fang, Fang, Cai: "Clinical characteristics of 34 COVID-19 patients admitted to intensive care unit in Hangzhou, China." in: **Journal of Zhejiang University. Science. B**, Vol. 21, Issue 5, pp. 378-387, (2020) (PubMed).