

# Produktinformation



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# Lieferung & Zahlungsart

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# SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic in



StressXpress®

# Corticosterone EIA Kit

Colorimetric detection of corticosterone Catalog No. SKT-205



#### **Overview**

Product Name
Corticosterone EIA Kit
Description
Colorimetric detection of corticosterone
Species Reactivity
Species Independent
Platform
Microplate
Sample Types
Dried Fecal Samples, EDTA Plasma, Heparin Plasma, Serum, Tissue Culture Media, Urine
Detection Method
Colorimetric Assay
Assay Type
Sandwich EIA (Enzyme Immunoassay)
Utility
EIA kit used to measure the corticosterone present in samples.
Sensitivity
18.6 pg/ml
Assay Range
78.125 - 10,000 pg/ml
Precision

Intra Assay Precision: Four human samples were diluted with Assay Buffer and run in replicates of 20 in an assay. The mean and precision of the calculated Corticosterone concentrations were:

Sample 1- 2460.6 pg/mL, 6.3% CV

Sample 2- 601.5 pg/mL, 6.5% CV

Sample 3- 371.6 pg/mL, 3.1% CV

Sample 4- 259.0 pg/mL, 4.8% CV

Inter Assay Precision: Three human samples were diluted with Assay Buffer and run in duplicates in fourteen assays run over multiple days by four operators. The mean and precision of the calculated Corticosterone concentrations were:

Sample 1- 2618.3 pg/mL, 7.5% CV

Sample 2- 630.1 pg/mL, 6.4% CV

Sample 3- 267.9 pg/mL, 9.9% CV

## **Number Of Samples**

39 samples in duplicate

# **Other Resources** Kit Booklet, MSDS, Steroid Solid Extraction Protocol **Properties Storage Temperature** 4°C **Shipping Temperature** Blue Ice **Product Type EIA Kits Assay Overview** The Corticosterone EIA kit is designed to quantitatively measure Corticosterone present in serum, plasma, urine, extracted dried fecal samples, and tissue culture media samples. This kit measures total corticosterone in serum and plasma and in extracted fecal samples. A corticosterone stock solution is provided to generate a standard curve for the assay and all samples should be read off the standard curve. We provide protocols on page 8 to prepare assay standards from 5,000 to 78.125 pg/mL or from 10,000 to 78.125 pg/mL. Please choose the standard range that fits your sample concentrations most appropriately. Standards or diluted samples are pipetted into a clear microtiter plate coated with an antibody to capture sheep antibodies. A corticosterone-peroxidase conjugate is added to the standards and samples in the wells. The binding reaction is initiated by the addition of a polyclonal antibody to corticosterone to each well. After an hour incubation the plate is washed and substrate is added. The substrate reacts with the bound corticosterone-peroxidase conjugate. After a short incubation, the reaction is stopped and the intensity of the generated color is detected in a microtiter plate reader capable of measuring 450nm wavelength. The concentration of the corticosterone in the sample is calculated, after making suitable correction for the dilution of the sample, using software available with most plate readers. **Kit Components** Component No. Item **Quantity / Size** SKC-205A Coated Clear 96 Well Plates 1 Each **SKC-205B** Corticosterone Standard 125 µl **SKC-205C**

SKC-205D

StressXpress® Corticosterone Conjugate

StressXpress® Corticosterone Antibody

3 ml

3 ml

# **SKC-205E Assay Buffer** 28 ml SKC-205F Dissociation Reagent 1 ml SKC-205G Wash Buffer Concentrate $30 \, \text{ml}$ SKC-205H TMB Substrate 11 ml SKC-2051 Stop Solution 5 ml SKC-205J Plate Sealer 1 Each

#### **Cite This Product**

Corticosterone EIA Kit (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SKT-205)

### **Biological Description**

#### **Alternative Names**

(11β)-11,21-dihydroxypregn-4-ene-3,20-dione EIA Kit

#### **Research Areas**

Cancer, Cell Signaling, Neuroscience, Oxidative Stress

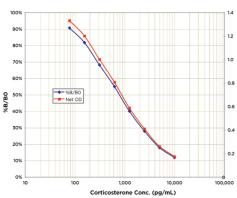
### **Scientific Background**

Corticosterone (C21H30O4, Kendall's Compound 'B') is a glucocorticoid secreted by the cortex of the adrenal gland. Corticosterone is produced in response to stimulation of the adrenal cortex by ACTH and is the precursor of aldosterone. Corticosterone is a major indicator of stress and is the major stress steroid produced in non-human mammals. Studies involving corticosterone and levels of stress include impairment of long term memory retrieval (1), chronic corticosterone elevation due to dietary restrictions (2) and in response to burn injuries (3). In addition to stress levels, corticosterone is believed to play a decisive role in sleep-wake patterns (4,5).

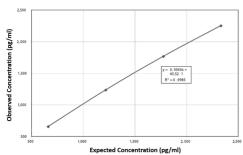
#### References

- 1. Hupé, JM, et al. Nature, 1998; 394: 784-787.
- 2. Kitaysky AS, Kitaiskaia EV, Wingfield JC, Piatt JF. J. Comp. Physiol, 2001; 171: 701-709.
- 3. Thellin O, Noel G, Khuana S, Ogle CK and Horseman ND. Shock, 2001; 16(5): 393-397.
- 4. Krame, KM. and Sothern RB. Chronobiol. Int., 2001; 18(6): 933-945.

## **Product Images**



Typical Standard Curve for the Corticosterone EIA Kit (Enzyme Immunoassay) StressXpress® – SKT-205. Assay Type: Sandwich EIA. Detection Method: Colorimetric Assay. Assay Range: 78.125 – 10,000 pg/ml.



Linearity was determined by taking two serum samples treated with Dissociation Reagent and diluted 1:50 with Assay Buffer, one with a low diluted corticosterone level of 104.6 pg/mL and one with a higher diluted level of 2,890.5 pg/mL, and mixing them in the ratios given below. The measured concentrations were compared to the expected values based on the ratios used.

### Chemical structure of Corticosterone

## **Product Citations (0)**

Currently there are no citations for this product.

### **Reviews**

