

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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# Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

# SZABO-SCANDIC HandelsgmbH

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# 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

Kit Booklet, MSDS, Steroid Solid Extraction Protocol

# **Properties**

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#### **Shipping Temperature**

#### 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
StressXpress® Corticosterone Antibody
3 ml
SKC-205D
StressXpress® Corticosterone Conjugate

SKC-205E
Assay Buffer
28 ml
SKC-205F
Dissociation Reagent
1 ml
SKC-205G
Wash Buffer Concentrate
30 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

4. Krame, KM. and Sothern RB. Chronobiol. Int., 2001; 18(6): 933-945.

<sup>1.</sup> Hupé, JM, et al. Nature, 1998; 394: 784-787.

<sup>2.</sup> Kitaysky AS, Kitaiskaia EV, Wingfield JC, Piatt JF. J. Comp. Physiol, 2001; 171: 701-709.

<sup>3.</sup> Thellin O, Noel G, Khuana S, Ogle CK and Horseman ND. Shock, 2001; 16(5): 393-397.

# **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.

There are no reviews yet.