RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

MOUSE ANTI CORTISOL

With HRP-conjugated secondary antibody

Catalog No.	**Species:**	**Isotype:**
DS-MB-01056	Broad	Mouse IgG3

Description

Cortisol is the most potent glucocorticoid produced by the human adrenal cortex. It is synthesized from cholesterol and its production is stimulated by pituitary adrenocorticotropic hormone (ACTH), which is regulated by corticotropin releasing factor (CRF). ACTH and CRF secretions are inhibited by high Cortisol levels in a negative feedback loop. In plasma, the majority of Cortisol is bound with high affinity to corticosteroid binding globulin (CBG), also referred to as transcotin. Cortisol acts through specific intracellular receptors. It is involved in the human response to stress by increasing blood pressure and blood sugar levels, while suppressing the immune system.

Applications

Table Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	•			
Western Blotting			•	
Immunohistology - frozen			•	
Immunohistology - paraffin			•	
Immunohistology - resin			•	
Immunoprecipitation			•	
Flow Cytometry			•	
Immunofluorence staining			•	
Neutralization			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

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Preparation

Immunogen was Cortisol conjugated to bovine serum albumin. This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with the immunogen. The IgG fraction of tissue culture supernatant was purified by Protein G affinity chromatography.

Specificity

DS-MB-01056 recognizes cortisol, a glucocorticoid hormone synthesized from cholesterol by the adrenal cortex. It is released in response to pituitary adenocorticotrophic hormone (ACTH) which is, in turn, regulated by corticotrophin releasing factor (CRF). High levels of cortisol act to regulate the release of ACTH and CRF via negative feedback inhibition. The release of cortisol stimulates the conversion of proteins to carbohydrates, raises blood sugar levels and promotes glycogen storage in the liver.

The following cross reactivities were observed:
Cortisol 100%
Prednisolone 30%
Cortisone 25%
Corticosterone 10%
11-desoxycortisol5%

No reactivity was observed with 17-a-OH-progesterone.

Reconstitution

Supplied as 200 µg of purified antibody. It is reconstituted with 200 µl of sterile PBS. Its final concentration is 1.0 mg/ml. **Please avoid freeze-thaw cycles.**

Secondary Antibody Applications

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

Storage

Store at -20^{0}C, if not intended for use within a month. Keep it at 4^{0}C and minimize freezing and thawing when use.

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Reference

Parry, B.L., Javeed, S., Laughlin, G.A., Hauger, R. and Clopton, P. 2000. Cortisol in premenstrual dysphoric disorder and normal control subjects. Biol. Psychiatry 48: 920-931.

Shamim, W., Yousufuddin, M., Bakhai, A., Coats, A.J. and Honour, J.W. 2001. Gender differences in the urinary excretion rates of Cortisol and androgen metabolites. Ann. Clin. Biochem. 37: 770-774.