



# Cortisol (CORT-2): sc-51841

## BACKGROUND

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 transcortin. 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.

## REFERENCES

1. 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.
2. 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.
3. Porter, R.J., Marshall, E.F. and O'Brien, J.T. 2002. Effects of rapid tryptophan depletion on salivary and plasma Cortisol in Alzheimer's disease and the healthy elderly. *J. Psychopharmacol.* 16: 73-78.
4. Geslin, M. and Auperin, B. 2003. Relationship between changes in mRNAs of the genes encoding steroidogenic acute regulatory protein and P450 cholesterol side chain cleavage in head, kidney and plasma levels of Cortisol in response to different kinds of acute stress in the rainbow trout (*Oncorhynchus mykiss*). *Gen. Comp. Endocrinol.* 135: 70-80.
5. Pereira, A.M., van Aken, M.O., van Dulken, H., Schutte, P.J., Biermasz, N.R., Smit, J.W., Roelfsema, F. and Romijn, J.A. 2003. Long-term predictive value of postsurgical Cortisol concentrations for cure and risk of recurrence in Cushing's disease. *J. Clin. Endocrinol. Metab.* 88: 5858-5864.
6. Hatfield, C.F., Herbert, J., van Someren, E.J., Hodges, J.R. and Hastings, M.H. 2004. Disrupted daily activity/rest cycles in relation to daily Cortisol rhythms of home-dwelling patients with early Alzheimer's dementia. *Brain* 127: 1061-1074.
7. Nonell, A., Kerk, S., Lederbogen, F., Kopf, D., Hamann, B., Lewicka, S. and Deuschle, M. 2004. No major effect of orciprenaline and propranolol upon ACTH-induced secretion. *Exp. Clin. Endocrinol. Diabetes* 112: 59-61.
8. Hammer, F. and Stewart, PM. 2006. Cortisol metabolism in hypertension. *Best practice research. Clin. Endocrin. Metab.* 20: 337-353.
9. Moisey, R., Wright, D., Aye, M., Murphy, E. and Peacey, S.R. 2006. Interpretation of the short Synacthen test in the presence of low Cortisol-binding globulin: two case reports. *Ann. Clin. Biochem.* 43: 416-419.

## SOURCE

Cortisol (CORT-2) is a mouse monoclonal antibody raised against full length human Cortisol conjugated to BSA.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

Each vial contains 100 µg IgG<sub>3</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Cortisol (CORT-2) is recommended for detection of Cortisol of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.