



PRODUCT FACTS

SOMA Product Code
SOMA LFD -C

Test Kit Contents

25 or 100 OFC (Swab & Buffer)
25 or 100 Cortisol LFDs

Applications

For the analysis of saliva samples for the quantitative determination of salivary cortisol when read in the SOMA LFD Reader. For use in Sport, Exercise, Corporate, Healthcare, Veterinary and Research.

Incubation Time

Two drops of saliva / buffer mix added to LFD, which is scanned 10 minutes later (scan takes approximately 4 seconds).

Sample Volume

Two drops of saliva / buffer mix from OFC (~100 µl).

Shelf-Life

Typically 12 months

Storage

4°C to 37°C

Specificity

Specific to human cortisol

L.O.D. **L.O.Q.**
0.55nM 0.87nM

Calibration Range

1.0 - 40.0 nM

Repeatability

Typical Error 0.47 ng/mL
Mean cv 9.6% (n=17,
range 1.21 - 9.83 ng/mL).

Simple salivary cortisol measurement solutions

SOMA Cortisol Lateral Flow Device (LFD)

The SOMA cortisol LFD offers a non-invasive, quick and easy quantitative method of assessment that requires no laboratory equipment and is remarkably cost-effective, especially when measuring small numbers of samples.

The component parts required for a test are: a SOMA LFD Reader; a SOMA Oral Fluid Collector (OFC) swab; a SOMA OFC Buffer and a SOMA LFD cassette, in this case Cortisol.

Cortisol is the classic stress hormone biomarker used routinely in the monitoring of psychological and certain aspects of physiological well-being. Given the huge cost effect of stress related-diseases to business and governments, the ability to monitor and manage stress levels quickly, simply and cheaply, is of enormous advantage.

The SOMA Cortisol test is very quick to perform and a fully quantitative result can be gained within 12-13 minutes from giving the subject an SOMA OFC swab. If testing a batch of samples, 20 tests can be measured in 20 minutes, making it far quicker than any laboratory test. The process is very simple and user-friendly.

Application to Sport

Commonly referred to as a key catabolic hormone, cortisol has been monitored regularly in many sporting situations when attempting to monitor the impact of training load and other factors encountered during intense training and competition.

One of the advantages of *salivary* cortisol is that it represents the unbound "free" and thus biologically active component of this stress hormone. Measurements can investigate both acute and chronic stress responses.

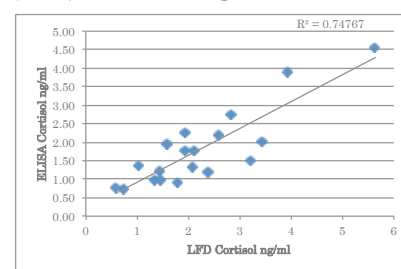
Monitoring Stress

The ability to monitor stress in a quick and easy non-invasive manner is now enabled with this simple to

administer saliva test. In behavioural sciences, it is normal to take a series of measurements through the day, because of the circadian pattern of cortisol responses, from relatively high values early in the morning,, towards near minimal values in the evening.

Measurement of a series of samples from an individual enables calculation of the cortisol awakening response (CAR) by examining the shape in the first 30-60 minutes from awakening, or area under the curve (AUC) for measurements from throughout the whole day and evening.

Comparison of Cortisol LFD with ELISA (n=18) at a Premier League Football club.



Agreement with Laboratory ELISA

The SOMA Cortisol LFD correlates well with values measured on the laboratory ELISA and when run in duplicates usually has within assay cvs of below 10%. Thus the test is accurate and reliable and easily performed in a wide range of environments, away from the lab. Each batch of strips manufactured use their own specific calibration curve, uploaded to the SOMA LFD Reader.

This test is ideal for applied work, or maybe pilot studies, where smaller numbers of samples are run, but the results are required quickly and in a more cost-effective manner.

Independent Validation Studies:

Fisher R *et al.* (2015) Validity and Reliability for a Salivary Cortisol Point of Care Test *J. of Athl. Enhancement* 4(4): 1-6

MacDonald L *et al.* (2016) Reliability of salivary cortisol and Immunoglobulin A measurements from the IPRO before and after sprint cycling exercise. *J. Sports Med & Phys Fitness*. November 2016