



PRODUCT FACTS

SOMA Product Code
SOMA LFD -G

Test Kit Contents
100 OFC (Swab & Buffer)
100 sIgG LFDs

Applications

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

Incubation Time

Saliva / buffer mix added to LFD, which is scanned 5 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 salivary immunoglobulin G

L.O.D. **L.O.Q.**
0.82 µg/mL 2.68 µg/mL

Calibration Range

2.0-120.0 µg/mL

Cross-Reactivity

With human IgA and IgM
< 0.1% at 100 µg/mL

Simple sIgG measurement solutions

SOMA IgG Lateral Flow Device (LFD)

The SOMA salivary IgG LFD offers a quick and easy non-invasive 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: an SOMA LFD Reader; an SOMA Oral Fluid Collector (OFC) swab; an SOMA OFC Buffer and an SOMA LFD cassette, in this case sIgG.

Approximately 70% of all immunoglobulins in humans are IgG, but the concentration is considerably higher in serum, as opposed to saliva or oral fluid. Most salivary IgG is from passive diffusion from blood, although some locally produced IgG is important for the protection of the respiratory tract (Brandtzaeg et al., 1996)

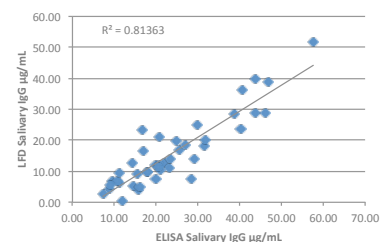
One of the key roles for IgG is neutralising toxins and increased levels are normally witnessed in response to various infections, auto immune diseases and a range of allergic responses. IgG performs its role by binding to pathogens and promoting phagocytosis once they have gained entry, thus protecting the body from infection. Those pathogens can be of varied form, usually viruses, bacteria and even fungi.

The salivary IgG test is very quick to perform and a fully quantitative result can be gained within eight minutes of 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

Research shows that although there are few changes in salivary IgG in response to acute exercise, there can be decreases in resting sample values over a long season of six months (Gleeson & Pyne, 2000).

Comparison of SOMA sIgG LFD with ELISA from Dunbar et al. (2013)



Agreement with Laboratory ELISA

The SOMA sIgG 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 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 or SOMA CUBE Reader.

References

Brandtzaeg P. et al. (1996) Immune functions and immunopathology of the mucosa of the upper respiratory pathways. *Acta Otolaryngol.* 116: 149-59.
Gleeson M. & Pyne D. (2000) Effects of exercise on mucosal immunity. *Cell Biol.* 78: 536-544.

Validation Paper

Dunbar J. et al. (2013) Investigating the use of a Point of Care salivary IgG test in the sporting environment. *ISEI Symposium* Newcastle, NSW, Australia.