Salivary Cortisol

Method:	Enzyme Immunoassay (ELISA)
Kit Manufacturer:	Salimetrics 101 Innovation Boulevard, Suite 302 State College, PA 16803
Description:	Cortisol (hydrocortisone, Compound F) is the major glucocorticoid produced in the adrenal cortex. Cortisol production has a circadian rhythm, with levels peaking in the early morning and dropping to lowest values at night. Levels rise independently of circadian rhythm in response to stress. This test is performed using a a competitive immunoassay kit. Cortisol in standards and samples compete with cortisol conjugated to horseradish peroxidase for the antibody binding sites on a microtitre plate. After incubation, unbound components are washed away. Bound cortisol enzyme conjugate is measured by the reaction of the horseradish peroxidase enzyme to the substrate tetramethylbenzidine (TMB). This reaction produces a blue color. A yellow color is formed after stopping the reaction with an acidic solution. The optical density is read on a standard plate reader at 450 nm. The amount of cortisol enzyme conjugate detected is inversely proportional to the amount of cortisol present, in the sample.

Collection and Performance Characteristics

Tube type:	Collect Saliva using a salivette tube (manufactured by Sarstedt) Refrigerate sample within 30 minutes, and freeze at or below -20ºC within 4 hours of collection. Thaw the sample and spin 15min @ 1500g or (3000 rpm). Then aliquot the supernatant into another tube (2mL cryo-tube preferred). Freezing the sample prior to spinning helps precipitate the mucin and provides a clearer cleaner sample.
Minimum Volume:	0.4 mL Avoid repeated freeze-thaw cycles Store at -20°C until analysis is performed
Lowest Reportable Value:	0.007 ug/dL
Dynamic range:	0.007 – 3.0 ug/dL
Precision:	Intra-Assay variation is: 3.0 – 7.0% Inter-Assay Variation is: 3.0 – 11.0%
Reference Range:	