



## IDS-iSYS Salivary Cortisol

The IDS-iSYS Salivary Cortisol assay is an *in vitro* diagnostic immunoassay intended for the quantitative determination of cortisol in human saliva on the IDS-iSYS Multi-Discipline Automated System family. Results are to be used as an aid in the assessment of Cushing's syndrome and other disorders of the hypothalamic pituitary adrenal axis.

Cortisol is a **steroid hormone** synthesised in the cortex of the adrenal gland. Approximately 90% of cortisol in plasma is protein-bound to cortisol-binding-globulin (CBG). Measurement of **unbound cortisol found in saliva** is an accurate method to assess the biologically **active free plasma cortisol**<sup>1,2</sup>. CBG concentrations decrease with certain liver and kidney diseases, resulting in decreased serum cortisol concentrations. The unbound fraction (as in saliva) is said to remain constant<sup>3</sup>.

In healthy subjects, cortisol levels peak at 7–9 a.m., with levels falling for the rest of the day<sup>4</sup>. Patients with abnormal function of the adrenal gland lose normal **circadian rhythm** and have higher levels of cortisol at midnight<sup>5</sup>.

Measuring midnight salivary cortisol is an easy and non-invasive means of diagnosing diseases of cortisol imbalance such as **Cushing's syndrome (CS)**. Salivary cortisol is most useful as the initial test when CS is suspected and for periodic patient monitoring after pituitary surgery for Cushing's syndrome<sup>6,7</sup>.

### Clinical Value

- Bringing efficiency to automated cortisol clinical diagnostics in saliva patient samples - first result in 8 minutes
- Excellent sensitivity and reproducible results
- Accurate assay results with calibration to isotope dilution mass spectrometry (IDMS)
- A comprehensive clinical assay panel supporting diagnosis of endocrine hypertension disorders

# Specifications

Format	Automated Chemiluminescence Immunoassay (CLIA)	
Limit of Quantitation	0.02 µg/dL	
Limit of Blank	0.015 ug/dL	
Assay Range	0.02 – 3.00 µg/dL	
Sample Volume	200 µL	
Sample Type	Saliva	
Calibration Stability	7 days	
Reagent On-board Stability	28 days	
Specificity	Dexamethasone <1% 6α-Hydroxycortisol <1% 6β-Hydroxycortisol <1% 6α-Methylprednisolone and Progesterone: <1% 11-Deoxycortisol and 11-Deoxycorticosterone: ≤ 5% Cortisone, Corticosterone, Prednisone and 21-Deoxycortisol: <20% Prednisolone: 28%	
Linearity	Observed = 0.97 Expected + 0.01µg/dL; R <sup>2</sup> 0.99	
Recovery	Mean 93.4% at 0.313 and 0.626 µg/dL	
Reference Ranges	06:00 – 10:00	20:00 – 00:30
	No. of subjects	124
	Reference Interval (µg/dL)	0.09 – 1.04
		0.02 – 0.34

## Ordering Information

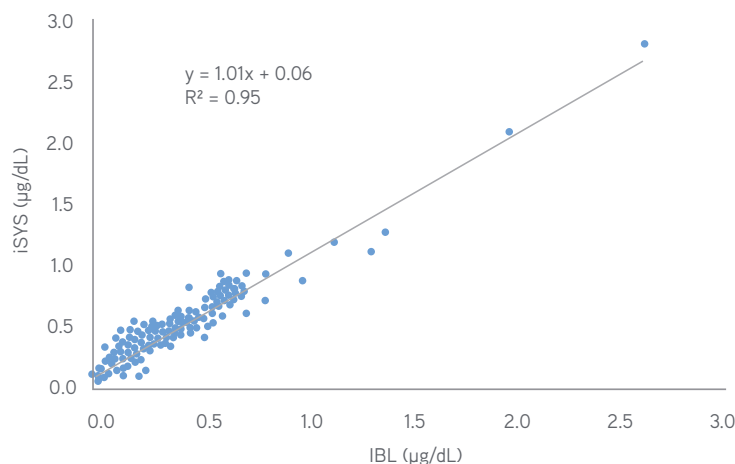
Product Name	Code
IDS-iSYS Salivary Cortisol Reagent pack:	IS-4900
IDS-iSYS Salivary Cortisol Control Set	IS-4930
IDS-iSYS Salivary Cortisol Calibration Verifiers	IS-4935

## Related Product

Product Name	Code
IDS-iSYS Aldosterone	IS-3300
IDS-iSYS Direct Renin	IS-3400

## Method Comparison

### Method comparison IDS-iSYS Salivary Cortisol Vs IBL ELISA



For more details on our products visit [www.idsplc.com](http://www.idsplc.com)

### References

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