



IDS Cortisol

IDS Cortisol assay is a fully automated CLIA assay for the quantitative determination of cortisol in human serum and plasma samples. Cortisol is a steroid hormone synthesized in the adrenal gland regulating a variety of physiological processes^{1,2,3}.

The IDS Cortisol results are to be used in conjunction with other clinical and laboratory data to assist clinicians in the diagnosis and treatment of disorders of the adrenal gland, such as hypo- and hyper-cortisolism, most commonly referred to as Addison's disease and Cushing's syndrome^{3,4}. Many common signs of Cushing's such as obesity, high blood pressure, and increased blood glucose are frequently observed in today's society⁵.

The Endocrine Society recommends the overnight dexamethasone suppression test as one of the screening tests for diagnosing Cushing's syndrome⁶, with a cut-off of <1.8 µg/dL as indication of suppressed serum levels. A peak cortisol <18 µg/dL following a standard-dose corticotropin stimulation test is indicative of adrenal insufficiency⁴.

Features and benefits

- Traceable to the Joint Committee for Traceability in Laboratory Medicine (JCTLM)-listed LC-MS/MS Candidate Reference Measurement Procedure (cRMP)⁷ for confidence in patient results
- Utilises direct antibody coating immunoassay principle, removing the risk of inaccurate results due to biotin interference
- Excellent functional sensitivity and precision over the clinically relevant range
- Efficient laboratory workflow, consolidating the testing of ACTH, Aldosterone and Direct Renin on one fully automated platform from one plasma sample tube

Specifications

Assay range	0.59 [LOQ] – 45.00 µg/dL	Calibration frequency	14 days
Sample volume	30 µL plus dead volume	Time to first result	28 minutes
Sample type	Serum and plasma samples	Precision [Within-Run]	<2 µg/dL SD ≤0.08 ≥2 µg/dL %CV ≤2.3%
Reagent stability	On-board system 14 days 28 days at 2 - 8°C	Precision [Total]	<2 µg/dL SD ≤0.18 ≥2 µg/dL %CV ≤5.0%

Traceability

The IDS Cortisol assay is traceable to the LC-MS/MS Candidate Reference Measurement Procedure (cRMP) Total Serum Cortisol. Through analysis of a Joint Committee for Traceability in Laboratory Medicine (JCTLM)-listed panel of higher-order Candidate Reference Materials (CRM), ERM-DA451/IFCC panel, the IDS Cortisol demonstrates traceable results.

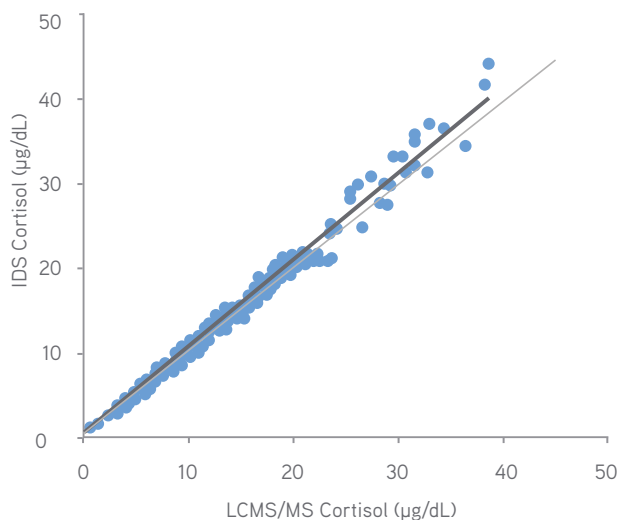
N	Slope	95% CI	Intercept (µg/dL)	95% CI	Correlation coefficient (r)
34	1.005	0.965 to 1.069	0.135	-0.256 to 0.560	0.993

Method comparison

IDS Cortisol vs LCMS/MS

190 specimens (range 0.9 – 44.7 µg/dL), including clinical routine samples and the ERM-DA451/IFCC panel (n=34), were assessed in parallel with the IDS Cortisol and LCMS/MS method of the University Hospital of South Manchester (UK).

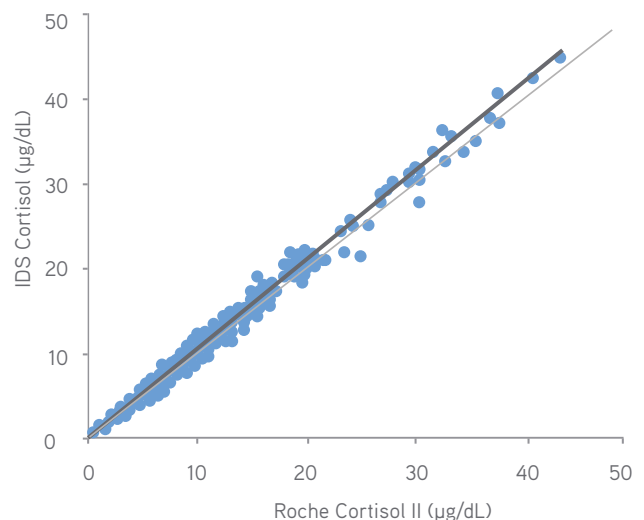
IDS Cortisol	95% CI of the slope	95% CI of the intercept	Correlation coeff. r:
1.06 x [LCMS/MS] - 0.29 µg/dL	1.04 - 1.08	-0.51 - -0.1	0.99



IDS Cortisol vs Immunoassay

194 specimens (range 0.6 – 44.7 µg/dL), including clinical routine samples and the ERM-DA451/IFCC panel (n=34), were evaluated in parallel with the IDS Cortisol and the Roche Cortisol II (Ref 06687733 190).

IDS Cortisol	95% CI of the slope	95% CI of the intercept	Correlation coeff. r:
1.06 x [Roche] - 0.10 µg/dL	1.04 - 1.07	-0.39 - 0.04	0.99



Ordering Information

Product name	Description	Code
IDS Cortisol	Reagent pack: 100 tests	IS-4600
IDS Cortisol Calibrator Set	6 levels	IS-4620
IDS Cortisol Control Set	3 levels	IS-4630

Other assays in the hypertension portfolio

Product name	Code
IDS-iSYS Aldosterone	IS-3300
IDS-iSYS Direct Renin	IS-3400
IDS-iSYS Salivary Cortisol	IS-4900
IDS-iSYS ACTH	IS-4500N

Visit www.idsplc.com for an extended range of IDS products

References

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