Aldosterone ELISA kit

Highly specific and sensitive ELISA kit for detection of aldosterone

The Aldosterone ELISA kit is a colorimetric competitive enzyme immunoassay kit with results overnight + 1 hour.

Aldosterone is a steroid hormone synthesized from cholesterol in the adrenal cortex. Aldosterone is metabolized in the kidney and liver, and functions as the key mineralocorticoid in the control of sodium and potassium balance. Synthesis and release of aldosterone by the adrenal gland is primarily regulated by the renin-angiotensin-aldosterone system (RAAS), the main regulatory system involved in blood pressure regulation, renal hemodynamics, and sodium-volume homeostasis. Measurement of serum aldosterone in conjunction with plasma renin is used clinically to differentiate between primary and secondary aldosteronism. Primary aldosteronism (hyperaldosteronism) is characterized by a very low renin:aldosterone ratio leading to the retention of sodium and increased blood pressure, and is typically the result of renal gland hyperplasia or tumors. In secondary aldosteronism, hyperproduction of aldosterone results from external conditions such as heart failure and renal artery disease that reduce renal blood flow and stimulate the RAAS mechanism. The RAAS directly affects vascular and cardiac remodeling through proliferative and inflammatory signaling, as aldosterone and salt have been shown to increase the expression of intracellular cyclooxygenase-2, osteopontin, and MCP-1 in rats. Aldosterone acts by binding to the mineralocorticoid receptor (MR) triggering the transcription of hormone responsive genes, and clinical studies have shown that patients with congestive heart failure or after myocardial infarction benefited from MR antagonist treatment. As pharmacological modulation of nuclear hormone receptors is a common strategy for the treatment of cardiovascular disease, determining the effect of such treatments on the RAAS is of increasing value in evaluating the safety and efficacy of new targeted therapeutics.

Citations: 98 View Online »

- Highly sensitive with measurement as little as 4.7 pg/ml of aldosterone
- Negligible reactivity with other steroids
- Validated and tested with human and rodent serum and plasma samples
- Fully quantitative results that surpass semi-quantitative Western blots

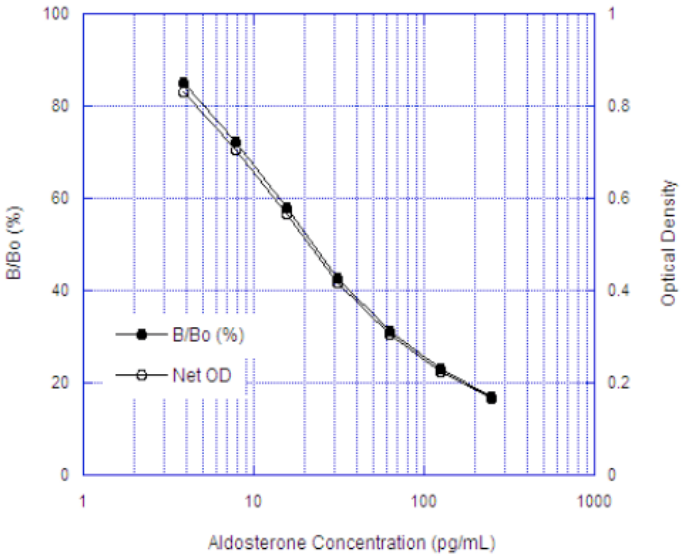
Ordering Information

Order Online »

ADI-900-173	96 wells

Manuals, SDS & CofA

View Online »


100
80
60
40
20
0
1
0.8
0.6
0.4
0.2
0
B/Bo (%)
Optical Density
B/Bo (%)
Net OD
1
10
100
1000
Aldosterone Concentration (pg/mL)

Handling & Storage

Use/Stability	Store all components at -20°C.
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application	Colorimetric detection, ELISA
Application Notes	For the quantitative determination of Aldosterone in plasma, serum, and urine from any species.
Assay Time	Overnight + 1 hour
Compatibility	This product is compatible with the **Absorbance 96 Plate Reader**.
Contents	DxS IgG Microtiter plate, Conjugate, Antibody, Assay buffer concentrate, Wash buffer concentrate, Standard, pNpp Substrate, Stop solution
Crossreactivity	Aldosterone (100%), 11-Deoxycorticosterone (0.3%), Corticosterone (0.19%), Progesterone (0.20%), and <0.001%: Cortisol, DHT, Estradiol, Testosterone
Sensitivity	4.7 pg/ml (range 3.9 – 250 pg/ml)
Species Reactivity	Species independent
Technical Info / Product Notes	**Cited samples:** Hormone ELISAs: Cited Samples Wildlife Endocrinology: Cited Sample Types
Wavelength	405 nm

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