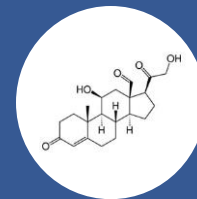


SALIVARY ALDOSTERONE QUICK START GUIDE



BIOLOGICAL CONSIDERATIONS

Aldosterone is a mineralocorticosteroid. Circulating aldosterone in the blood stream, not bound to serum proteins, enters saliva by passive diffusion and therefore the linear association between levels measured in saliva and plasma is strong, but levels in saliva are approximately 30% of aldosterone levels in plasma. Aldosterone is mainly produced in the adrenal glands. The biological effects of aldosterone are involved in the regulation of sodium and water through the kidneys, exchange of potassium and hydrogen ions, and regulation of blood volume and pressure. Dysregulation of aldosterone levels have been associated with dehydration, cardiovascular problems, and symptoms of psychiatric disorder (e.g., Anxiety).

Biological Representation	Systemic
Serum-Saliva Correlation	0.75-0.96

SAMPLE TIMING AND DESIGN

Salivary aldosterone follows a diurnal rhythm in healthy individuals. Both salivary and plasma aldosterone increase significantly while standing, compared to being seated; this effect is significantly higher in females than in males. Since posture affects aldosterone levels, sampling is recommended after 30 minutes in position. Licorice (real) mimics aldosterone and should be avoided two weeks before collection. Salivary aldosterone levels are unaffected by salivary flow rate or hormone-binding proteins.

FREQUENTLY STUDIED WITH

17 Alpha-OHP, Alpha-Amylase, Cortisol, C-Reactive Protein, DHEA, Interleukin-1beta, Oxytocin

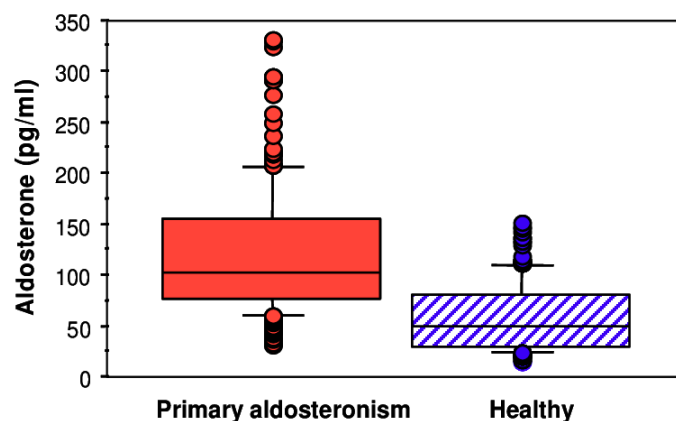
TECHNICAL SUMMARY

Sample Collection Methods & Volumes	
Passive Drool	✓
SalivaBio Swabs	-
Optimum Collection Volume	175 µL*

*Add 300 µL to the total collection volume for all analytes of interest.

EXAMPLE DATA

"Salivary aldosterone levels in Primary aldosteronism and healthy participants. Mean value for PA = 120 pg/ml (n = 201) and for healthy participants = 59 pg/ml (n = 203). Bars indicate 25th and 95th percentiles for each group with individual outliers given above and below; significance was calculated by Mann-Whitney U test, p<0.0001 Source" (Manolopoulou J 2008)*.



*Manolopoulou, J. (2008).

KEY RESOURCES

1. Meneton, P., Loffing, J., & Warnock, D.G. (2004). Sodium and potassium handling by the aldosterone-sensitive distal nephron: The pivotal role of the distal and connecting tubule. *Am J Physiol Renal Physiol*, 287(4), F593-601.
2. Granger, DA, Taylor, MK. (2020). *Salivary Bioscience: Foundations of Interdisciplinary Saliva Research and Applications*. Springer. <https://springer.com/book/10.1007/978-3-030-35784-9>
3. Williams, G.H (2005). Aldosterone biosynthesis, regulation, and classical mechanism of action. *Heart Fail Rev*, 10(1), 7-13.
4. Manolopoulou, J. (2008). *Endocrine Hypertension, Adrenal Steroids and Development of a Saliva Based Aldosterone Assay as a Potential Screening Method*.

