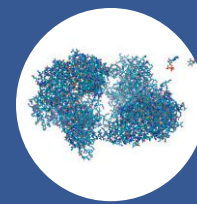


# SALIVARY TOTAL PROTEIN QUICK START GUIDE



## BIOLOGICAL CONSIDERATIONS

Total protein is a non-specific measure of the total amount of all proteins present in a solution. It is used in the context of salivary bioscience to examine changes in overall protein secretion in saliva and to look for differences in the ratio of specific proteins (or other analytes) to total protein that exists in different oral fluids or that occur in response to physiological changes. Total protein can be used to normalize concentrations of various salivary proteins such as SIgA, since concentrations of total protein can vary significantly in response to stimulation or alterations of saliva flow.

Biological Representation

Local Oral

## SAMPLE TIMING AND DESIGN

Our laboratory uses the Pierce bicinchoninic acid assay (BCA assay), which is compatible with various chemicals in buffers that can cause interference in other protein determination methods (e.g., Lowry method). Total protein levels in saliva may be dependent on saliva flow rate, oral health status, and sampling time of day.

## FREQUENTLY STUDIED WITH

Salivary analytes which enter oral fluids from the circulation via routes other than passive diffusion; total protein is primarily applied in salivary bioscience as a covariate or to normalize concentrations of other salivary analytes.

## TECHNICAL SUMMARY

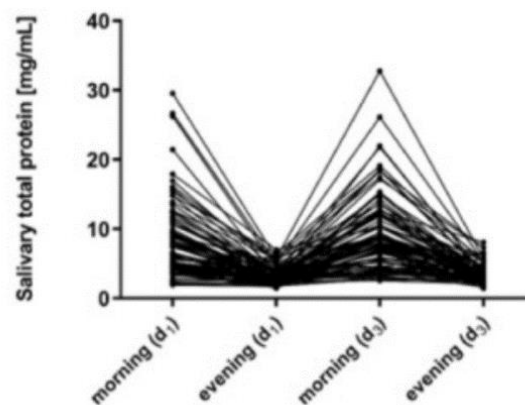
### Sample Collection Methods & Volumes

Passive Drool	✓
SalivaBio Swabs	-
Optimum Collection Volume	75 $\mu\text{L}$ *

\*Add 300  $\mu\text{L}$  to the total collection volume for all analytes of interest.

## EXAMPLE DATA

Wettero et al 2021, measured salivary total protein in each participant during the morning and evening in day 1 and day 3. Salivary total protein followed a diurnal profile.



Wettero 2021

## KEY RESOURCES

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7. Shi, D., Meng, H., Xu, L., et al. (2008). Systemic inflammation markers in patients with aggressive periodontitis: A pilot study. *J Periodontol*, 79(12), 2340-46.
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