SALIVARY TRANSFERRIN
QUICK START GUIDE

BIOLOGICAL CONSIDERATIONS

In blood, most steroid hormones are bound either to non-specific proteins such as albumin or to specific proteins such as corticosteroid binding globulin (CBG) or sex hormone binding globulin (SHBG). These protein molecules are generally too large to passively diffuse into saliva. By contrast, free-unbound circulating hormone molecules do passively diffuse from blood into saliva. Steroid hormone concentrations in saliva are therefore much lower than those in blood. If the barrier between the bloodstream and the oral mucosa is compromised by inflammation or microinjury, blood product leakage into saliva creates the possibility that analyte levels in saliva will be falsely elevated. Visual inspection is not adequate to reliability determine whether blood products have leaked into saliva. Dipstick tests for blood, which look for the presence of hemoglobin, are also not reliable screening tools, due to the presence of peroxidases in saliva, which can generate false-positive results.

| Biological Representation | Sample Quality |

SAMPLE TIMING AND DESIGN

High levels of transferrin measured in saliva indicate the presence of blood contamination and serve as a warning to investigators that samples should be excluded from subsequent quantitative assays for salivary analytes and statistical analyses. Saliva samples collected from populations that have little or no dental care, or known oral health problems, are especially appropriate for screening for blood contamination.

FREQUENTLY STUDIED WITH

All Analytes

TECHNICAL SUMMARY

<table>
<thead>
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<th>Sample Collection Methods &amp; Volumes</th>
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<td>Passive Drool</td>
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<tr>
<td>SalivaBio Swabs</td>
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<td>Additional Collection Volume</td>
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*Add to the total collection volume for your analytes of interest.

EXAMPLE DATA

(Top) Sample discoloration ratings of blood contamination are elevated over baseline and control conditions only immediately after microinjury. (Bottom) Salivary transferrin levels (mg/dl) elevate immediately after, peak 15 min after, and remain elevated until 45 min after microinjury. *P < 0.05, **P < 0.01, ***P < 0.001.

KEY RESOURCES