

Saliva Handling and Storage Advice

It is important to use only high-quality polypropylene vials or tubes to collect samples, since other materials can lead to problems with analyte retention or the introduction of contaminants that can interfere with the immunoassay. The vials must also seal tightly and be able to withstand temperatures as low as -80°C .

We encourage researchers to refrigerate or freeze saliva samples as soon as possible after collection. Many analytes are not stable at room temperature, and keeping samples cold after collection is important. When samples remain at room temperature for periods of time longer than a few hours there is also opportunity for bacterial growth, which can compromise assay validity. ***Do not add sodium azide to preserve the samples*** – it causes interference in immunoassays. We advocate a conservative approach and advise that ***all*** samples should be maintained at 4°C for no longer than several hours before freezing them at or below -20°C (temperature of a regular household freezer). However, freeze-thaw cycles should be minimized ***for some analytes***. It is critical that storage conditions are researched prior to initiation of sample collection. Contact Salimetrics for details.

On the day samples are to be assayed, bring them to room temperature, vortex, and then centrifuge for 15 minutes at approximately 3,000 RPM (1500 x g). Assays should be performed using only clear saliva, avoiding any sediment present in the bottom of the tube. Re-centrifuge tubes following each freeze-thaw cycle since additional precipitates may develop upon refreezing.

If you collect saliva for biomarker analysis and think that the sample may be used at some point for genetic analysis, it is important to keep the cell pellet at the bottom of your whole saliva sample. If an absorbent device is used to collect the sample, it should be saved along with the saliva, since the swab may retain cellular material. We also advise that gloves should be worn whenever handling swabs to avoid DNA contamination.