



## Sample Collection

Sample collection is very important in the integrity and eventual interpretation of the data. There are many pre-analytical variables that can affect the results of clinical pathology testing. Collecting the correct sample, collection tube, collection site, sample storage and shipment can all affect the result before analysis even begins.

For mice and rats, the typical blood collection procedures require that the animals are anesthetized and restrained. It is important to use the same collection methods that work best for your facility. Always use the same collection site as well<sup>1,2</sup>. Values can vary from one collection site to another. For other animals as well as rats and mice, it is important in some cases to collect blood at a certain time of day depending on the circadian rhythm. Fasting may be important for some tests. Rats and mice are not truly fasting for almost 24 hours, although debates continue if rats should be fasted.

Please check the list below to determine the correct sample type (serum or plasma) for the test. Some anticoagulants are not acceptable for certain tests and will invalidate the test results. Plasma can be obtained from the use of several different anti-coagulants. Each type of anti-coagulant changes the plasma. Not all anticoagulants are acceptable for all tests.

Sample storage is also important. The test manufacturer has tested samples for the best storage conditions and the time that samples are stable at these conditions. If these conditions cannot be met, it is important to send the samples for analysis as soon as possible.

1. Neptun, D, Smith, C and Irons, R, Effects of Sampling Site and Collection Method on Variations in Baseline Clinical Pathology Parameters in Fischer-344 Rats, I Clinical Chemistry, Fundamental and Applied Toxicology, 5, 1180-1185 (1985).
2. Smith, C, Neptun, D and Irons, R, Effects of Sampling Site and Collection Method on Variations in Baseline Clinical Pathology Parameters in Fischer-344 Rats, II Hematology, Fundamental and Applied Toxicology, 7, 658-663 (1986).

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