Guidelines for DNA Submission

**Sample Submission Requirements** Plasmid concentration must be 100 ng/µl. Submit 10 µl per reaction . Custom primers must be at 1 pmol/µl. Submit 10 µl per reaction. The DNA and primer must be submitted in 0.5-ml Eppendorf tubes with the sample name written on the sides and tops of the tubes. BAC DNA should be submitted at 500 ng/µl and primers at 25 pmol/µl. PCR products should be submitted at a minimum concentration of 20 ng/µl for products less than 1 kb. Products 1 kb or greater should be submitted at 30 ng/µl.  Submit 10 µl per reaction

**Quantitation of DNA** All DNA submitted to the facility needs to be accurately quantified. We recommend visual determination of DNA quality and quantity on an agarose gel using a quantitative DNA ladder. Alternatively DNA concentration can be determined fluorometrically. DNA concentrations determined using a spectrophotometer are often artificially high due to the presence of RNA, proteins, bacterial genomic DNA and other contaminants.

**Note:** Low DNA concentration is the most common cause of poor quality sequence and failed reactions. Too much DNA can, however, be as bad as too little. The presence of too much template results in top-heavy data (strong peaks at the beginning which fade rapidly), pull-up peaks (non-specific peaks that appear below the correct peak) and loss of peak resolution. In addition, it shortens the life of our capillaries.