ACGT, INC.

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Guidelines for DNA Sample Submission for Quick Single Pass DNA Sequencing Service

We understand that every sequencing result and turnaround time is critically important for you to proceed to the next step of your research. In order to generate good sequencing data the first time, please review the following information for details on how to submit DNA samples to ACGT, Inc.

Amount of Template and Primer DNA Required:

The amount of template and primer required in each reaction is shown below. Please send enough DNA to do a re-run in case the first reaction fails.

In a separate tube for template and primer:

Template DNA	Size of DNA	Amount (ng)	Primer (pmol)
Plasmid DNA	up to 10 kb	100	10-15
PCR DNA	100-200 bp	5	10-15
PCR DNA	200 - 500 bp	10	10-15
PCR DNA	500 bp - 1 kb	20	10-15
PCR DNA	1 kb - 2 kb	50	10-15
PCR DNA	over 2 kb	100	10-15
Large DNA	over 10 Kb	500 - 1,000	20

Pre-mixed template & primer in the same tube:

Template DNA	Size of DNA	Amount (ng)	Primer (pmol)	Total vol
Plasmid DNA	up to 10 kb	100 - 200	20	10 µl
PCR DNA	100-200 bp	5 - 10	20	10 µl
PCR DNA	200-500 bp	10 - 20	20	10 µl
PCR DNA	500 bp – 1kb	20 - 30	20	10 µl
PCR DNA	1 kb – 2 kb	50 - 100	20	10 µl
PCR DNA	over 2 kb	100 - 150	20	10 µl
Large DNA	over 10 Kb	500 - 1,000	40	20 µl

General Information:

1. Samples can be submitted in microfuge tubes (e.g. 1.5 ml, 650µl, or other tubes) or 8-strip microtubes with the appropriate amount of template and primer.
2. Different samples submitted in 8-strip microtubes should have clear indications corresponding to template descriptions to avoid sample mix-up.
3. Extra amount of DNA ensures that we have enough samples to do a re-run in case the first reaction fails.
4. Please include a gel photograph of the template DNA with the quantity of the DNA loaded including a molecular marker.
5. Quantitation of plasmid DNA - We recommend using gel electrophoresis, where the band intensity of a sample DNA is compared to a standard ladder, as the most accurate quantitation. For example, the 1.6 kb band of the popular Invitrogene 1 KB plus ladder contains 8% of total amounts of DNA presents in the ladder mixture, and can be used as quick reference for estimating the concentration of your template.
6. Note that if a template requires to be analyzed in two directions, pre-mixed samples of the template with both forward and reverse primers in a separate tube should be submitted.
7. Templates and primers should be clearly identified on the Sample Submission Form.
8. Please use a BLACK marker only to label your tubes. Colored markers smear and can be very difficult to read.