

PacBio Terms of Service

Thank you for choosing MOgene, LC for the processing of your experiment. In order to better serve you, MOgene, LC requires that our clients read and sign the following agreement before services commence.

It is strongly recommended that the principle investigator contact MOgene, LC prior to sample submission in order to discuss array strategies and the technologies available. This will help us determine the method to best suit your needs.

All sample information should be entered on the sample submission form located on our website at www.mogene.com. This provides tracking information that will ensure efficient and accurate results for your experiment. MOgene, LC will not be held responsible for any processing errors if the sample submission process is not followed. Exceptions are allowable on a case by case basis but any changes must be clearly documented prior to the start of service and are subject to the approval of MOgene, LC.

For optimal sample processing, the client must agree to meet the following sample submission requirements. These include minimum sample concentrations and sample purity and integrity.

The minimum sample amounts listed below are required for quality checks and optimal sample inputs for downstream processing. Quality checks include a Nanodrop reading to determine sample purity, a Bioanalyzer or TapeStation trace to determine sample integrity, and a quantitation by fluorescence detection assay (for DNA hybridizations). Larger sample quantities will enable us to purify samples as needed.

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Pacbio Sequencing

Sample purity (as determined by UV absorbances at 230 nm and 280 nm, relative to that of the nucleic acid concentration absorbance at 260 nm) is critical for optimal processing and consistency between samples to be processed for microarray hybridization. The absorbance at 230 nm is indicative of polysaccharide or solvent contamination. This affects the accuracy of concentration data and adversely affects labeling efficiencies. The absorbance at 280 nm can be indicative of protein or phenol contamination; it may also indicate RNA contamination in DNA samples registering lower values relative to that of the 260 nm wavelength and vice versa. If you need recommendations for RNA or DNA isolation, please contact MOgene at 314-669-2590.

Target Library Insert Size	Recommended DNA Quantity for Submission*	Min Input DNA Amount Required (Post-Shearing)	Purified DNA SMRTbell™ Library Concentration (ng/μl)	Est. Total Data Yield (Gb)	
				MIN	MAX
250 bp	600 ng	250 ng	5	95	190
500 bp	600 ng	250 ng	5	18	36
1 kb	1.2 μg	500 ng	10	340	680
2 kb	1.2 μg	500 ng	10	170	340
5 kb	2.4 μg	1 μg	25	170	340
10 kb	2.4 μg	1 μg	25	85	170
10 - 20 kb (AMPure)	15 μg	5 μg	125	35	70
20 kb (BluePippin)	15 μg	5 μg	50	10	20

* DNA input amounts recommended for submission represent quantities needed for one (1) SMRTbell library prep and includes extra quantity needed for any additional QC (with conservative excess). Estimated Min and Max total sequencing data yields (Gb) are based on the assumption of a starting SMRTbell DNA template volume of 10 μL, a purified SMRTbell DNA template concentration of 5 - 125 ng/ μl and a throughput of 500 - 1000 MB per SMRT Cell using P6-C4 chemistry. For insert sizes ≥ 1-kb, a Magnetic Bead (one cell per well) loading protocol is used in the SMRT Cell yield calculations. Preparation of 20-kb large-insert libraries can be achieved using either AMPure or BluePippin size selection strategies. Actual data yields may vary depending on sample DNA quality.

1 For RNA applications: 260/280 of 1.8-2.0, 260/230 of 2.0 – 2.4.

2 For DNA applications: 260/280 of 1.8-2.0, 260/230 of 2.0 – 2.4.

Shipping Instructions:

- 1 Fill out the sample submission form at www.mogene.com and print out a copy to send with your samples.
- 2 Send samples in 1.5 mL micro-centrifuge tubes clearly labeled with a black permanent marker in five characters or less. Please do not use stickers, tape, or parafilm (unless you are shipping genomic DNA at room temperature – we recommend shipping on dry ice).
- 3 If shipping on dry ice, remember to place tubes in a secondary container, such as a cryobox (required if you use large pieces of dry ice rather than pellets) or a zip-lock bag.
- 4 RNA samples should be sent on dry ice by priority-overnight delivery service to arrive the next morning. It is recommended that you ship samples Monday through Wednesday to ensure safe delivery. Do not ship on Fridays or the day before a holiday. Be sure to pack enough dry ice to ensure that samples remain completely frozen in case of shipping delays.
- 5 MOgene, LC will not be responsible for items lost or damaged in shipping.
- 6 Provide an approved purchase order (PO) number with each set of samples submitted.

MOgene, LC will perform the following services upon receipt of sample shipment:

- 1 Sample concentration and purity will be verified by Nanodrop spectrophotometer.
- 2 DNA inputs for Sequencing will be calculated based upon PicoGreen fluorometric

assay or Qubit

3 RNA/cDNA integrity will be verified by Agilent Bioanalyzer.

4 Genomic DNA integrity will be verified by Agilent TapeStation or Pippin pulse Gel

5 Library yields will be determined by Qpcr or Qubit

6 Library will be validated by Agilent TapeStation or Bioanalyzer

MOgene, LC will conduct the quality checks listed above to rule out sample related sequencing failures and will not be held accountable for experiments that fail to meet the minimum sample requirements. MOgene, LC will not be liable for sequencing failures resultant from compromised samples, library provided by the client. In the case of sequencing failures deemed to be the result of compromised reagents, sequencing instrument or processing error, MOgene, LC will make every reasonable effort on your behalf to obtain replacement reagents to repeat the experiment. MOgene, LC will not be held responsible for loss or damage of samples during shipping. MOgene, LC will notify you immediately if any sample(s) is deemed to be insufficient or of unsatisfactory condition for sequencing application. There will be a nominal processing charge of \$100 per batch of samples (11 or less) assessed to you if it is necessary to QC replacement samples submitted in substitution for samples that failed QC. QC data is available upon request. All data sets will be provided for download through electronic transfer. MOgene, LC will maintain all samples and data files for a period of 30 days from completion of your sequencing experiment. MOgene, LC will not be held responsible for any data sets or samples after this 30-day period unless a written request is made to store beyond the stated period, in which case a charge of \$60/month will be assessed. Samples can be returned to you at your expense.