signios bio

Formerly known as MedGenome, Inc.

MedGenome Premade Library Requirements and Shipping Guidelines

Service Type	Requirements
Premade Library Sequencing	1. Pooled and individual libraries concentration and volume requirements are listed in the tables below for MiSeq, HiSeq and NovaSeq instruments. 2. Libraries must be free of adapter dimers. If there is adapter dimers, expected data generation cannot be guaranteed. 3. Proper index information must be sent along with proposal including Name of Index Kit used, Index ID, Index sequence. If custom index is used, client must specify if i5 index needs to be reverse complemented. If wrong index information is provided, re-demux and re-sequencing charges apply. 4. Indexes must have >3bp nuclei diversity within the pool. To help ensure our promised turnaround time, please use dual 8 bp indexed libraries. This helps us meet the required minimum hamming distance of 2 bp for shared lanes. Other indexes (e.g. single 6 bp indexed libraries) are acceptable, but may result in sequencinging delays. 5. We prefer libraries with same size for pooling. A max of 50bp difference is ok to pool. If difference is more then 50-100 bp then we can't guarantee equal reads/sample, but we can guarantee total reads for the overall pool. 6. For higher coverage pools, equi-molar pooling is very important. Client can ship individual libraries for assistance with pooling if required. 7. If the libraries use UDIs, please make sure that same I7 and I5 are not repeating within in pool.

Instrument	Concentration Needed	Volume
MiSeq	4-6 nM	10-20 µl
HiSeq	4-10nM	15-30 µl

NovaSeq 6000	Concentration Needed	Individual Sample < 500M total reads Volume Requirements	Individual Sample 500M-1B total reads Volume Requirements	Single Pool for Lane - (XP-MODE) Volume requirements	Single Pool for FlowCell – (XP-MODE) Volume Requirement	Single Pool for FlowCell - (STANDARD-MODE) Volume Requirement
SP	>4 nM	15 µl	30µl	30	60	150
S1	>4 nM			30	60	200
S2	>4 nM			50	100	200
S4	>4 nM			60	240	450

NovaSeq X+	Concentration Needed	Single Lane - Volume requirement (µl)	FlowCell - Volume requirement (µl)
1.5B	>4 nM	30	60
10B	>4 nM	30	60
25B	>4 nM	50	100

Custom Primers for Illumina sequencing

1. At least 100uM in 30ul.
2. Please confirm if custom primers are compatible with Illumina primers in special instructions area of order form

Instrument	Library type	Library size	Minimum Amount required per SMRT cell (ng) * Volume requirement: 25µl
PacBio Revio	WGS	10Kb	120ng
		15Kb	180ng
		18Kb	210ng
		21Kb	250ng
	Amplicon	<3Kb	75ng
		3-10Kb	100ng
		>10Kb	120ng
	Iso-Seq	<3Kb	75ng
		3-10Kb	100ng
	Kinnex Single cell RNA	14-15Kb	125ng
	Kinnex Single cell RNA	16-17Kb	125ng
	Kinnex 16s	18-19Kb	125ng
	AAV	2.1-2.6Kb	100ng
	PureTarget Expansion Panel	NA	NA**

Notes: ** Library should be sent in <=25 ul PacBio elution buffer. If the library concentration is less than recommended values, please discuss with the Technical Service Specialist / Project Manager.*

*** We will need to load the entire volume sent by the customer*

Library Shipping Guidelines

1. Please use unique naming on sample tubes. Avoid using generic naming such as “1, 2, 3..” or “Sample 1, Sample 2…” or “A, B, C…” etc. Unique names enable accurate project alignment.
2. Label sample tubes clearly with sample name and preparation date.

a. Please use lab grade marker for tube labelling. Other markers become smeared or erased in -80C freezer conditions.
b. If you use stickers to label your tubes, please also handwrite labels on the tubes as well. Stickers often fall off in -80C freezer.

3. Confirm tube names correspond to the sample names on the order form.
4. Ship samples in any 1.5mL LoBind tube or 96 well LoBind skirted plate. We recommend the following two products, but will accept other manufacturer’s products:

a. Eppendorf 1.5mL LoBind Tubes
b. Eppendorf LoBind Skirted Plate, Fischer Scientific Catalog No. E0030129512
c. PCR tubes (single or strip) are not accepted. If samples were previously frozen in this tube type, please contact your sales executive for instructions.

5. Seal tubes properly to avoid leakage and contamination using parafilm. Use film sealer for plates and make sure to seal each well to avoid leaks.
6. Pack samples to avoid tubes being crushed during shipment.

a. We recommend placing 1.5mL tubes within a 50ml tube, within a box or tube racks/holders to keep samples from being crushed or opened during shipment.

7. Ship samples on blue or dry ice according to above shipping recommendations for your sample type.
8. Fill out order form provided by sales representative and include a copy inside your package as well as email a copy to your sales representative.
9. Follow shipping suggestions per sample types below:

Sample Type	Shipping Requirements
Premade Libraries	Ship with ice pack or blue ice with cold-chain transport system (2-8C)