



Institute for Genomics, Biocomputing & Biotechnology

Director: Daniel G. Peterson

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## Standard Services Price List

### NOTES

Prices for services conducted by IGBB personnel are all-inclusive (i.e., include personnel time/effort, reagents, instrument costs, shipping & handling, etc.) unless otherwise noted.

*Internal User* pricing is available to the following: Mississippi State University staff, faculty, retired faculty, and students (including IGBB employees/faculty); employees of federal and state agencies collaborating with the IGBB.

*Internal User* prices were developed using a "cost recovery" formula. They contain no overhead charges and can be directly used in preparation of grant proposals (as contractual services) by Mississippi State University faculty. However, it is highly recommended that anyone writing a proposal obtain an official quote from the IGBB (see <http://www.igbb.msstate.edu>). The IGBB cannot guarantee that its services/prices will be available to those who include IGBB Standard Services in their proposals but do not formally request such services prior to proposal submission.

*External User* prices include a 45.5% overhead charge.

Services and prices are evaluated on an annual basis (or as needed). Price/product changes must be approved by the MSU Controller's Office.

## TISSUE HOMOGENIZATION & PROTEIN PURIFICATION

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
<b>P1000A</b>	<b>Protein sample prep using Covaris S220</b> Reagents and plasticware will be provided by the IGBB.	Sample	\$75.49	\$109.84
<b>P1100A</b>	<b>Protein fractionation by Sage ELF</b> Consult with IGBB Proteomics Lead.	Sample	\$148.75	\$216.43
<b>P1200A</b>	<b>In-solution digestion of proteins; batch of 10 or fewer samples</b> Tissue should be supplied by customer.	Batch	\$162.39	\$236.28
<b>P1250A</b>	<b>TCA-based protein isolation; first sample</b> Reagent costs are calculated for 1 g of tissue. Reagents and solutions will be provided by the IGBB.	Sample	\$109.57	\$159.42
<b>P1255A</b>	<b>TCA-based protein isolation; each additional sample</b> Reagent costs are calculated for 1 g of tissue. Reagents and solutions will be provided by the IGBB.	Sample	\$41.64	\$60.59
<b>P1300A</b>	<b>Phenol-based protein extraction; first sample</b> Reagent costs are calculated for 1 g of tissue. Reagents and solutions will be provided by the IGBB.	Sample	\$294.24	\$428.12
<b>P1305A</b>	<b>Phenol-based protein extraction; each additional sample</b> Reagent costs are calculated for 1 g of tissue. Reagents and solutions will be provided by the IGBB.	Sample	\$67.81	\$98.66

## GEL-BASED PROTEIN ISOLATION, LABELING & IMAGING

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
<b>P2000A</b>	<b>Isoelectric focusing (IEF) 11 cm strip; first strip</b> Customer must provide quantified protein sample dissolved in IEF compatible buffer (ask IGBB staff for details).	Strip	\$42.57	\$61.94
<b>P2050A</b>	<b>Isoelectric focusing (IEF) 11 cm strip; additional strips up to 12</b> Customer must provide quantified protein sample dissolved in IEF compatible buffer (ask IGBB staff for details).	Strip	\$21.81	\$31.73
<b>P2100A</b>	<b>Isoelectric focusing (IEF) 17 cm strip; first strip</b> Customer must provide quantified protein sample dissolved in IEF compatible buffer (ask IGBB staff for details).	Strip	\$44.41	\$64.62
<b>P2150A</b>	<b>Isoelectric focusing (IEF) 17 cm strip; additional strips up to 12</b> Customer must provide quantified protein sample dissolved in IEF compatible buffer (ask IGBB staff for details).	Strip	\$23.64	\$34.40
<b>P2200A</b>	<b>2D PAGE on slab gel; first gel</b> Customer provides precast gel of their choice.	Gel	\$109.04	\$158.65
<b>P2350A</b>	<b>Gel staining with Sypro Ruby</b>	Gel	\$90.44	\$131.59
<b>P2400A</b>	<b>Visual and UV protein gel imaging</b>	Gel	\$20.44	\$29.74
<b>P2450A</b>	<b>Gel analysis with PD Quest software</b>	Hour	\$52.14	\$75.86
<b>P2500A</b>	<b>CyDye protein labeling for 2D DIGE, 1st dye</b> Customer must provide quantified protein sample dissolved in CyDye compatible buffer (ask IGBB staff for details). Sample will be labeled with customer's choice of Cy3, Cy5, or Cy2.	Sample	\$280.42	\$408.01
<b>P2550A</b>	<b>CyDye protein labeling for 2D DIGE, 2nd dye</b> Customer must provide quantified protein sample dissolved in CyDye compatible buffer (ask IGBB staff for details). Sample will be labeled with customer's choice of Cy3, Cy5, or Cy2.	Sample	\$198.91	\$289.41

## GEL-BASED PROTEIN ISOLATION, LABELING & IMAGING - cont.

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
P2600A	<b>CyDye protein labeling for 2D DIGE, 3rd dye</b> Customer must provide quantified protein sample dissolved in CyDye compatible buffer (ask IGGB staff for details). Sample will be labeled with customer's choice of Cy3, Cy5, or Cy2.	Sample	\$198.91	\$289.41
P2650A	<b>CyDye stained gel imaging</b> Reagents, plasticware, etc., are the responsibility of the customer.	Hour	\$110.10	\$160.20
P2700A	<b>DIGE gel analysis using DeCyder software</b> IGBB staff will conduct the analysis and discuss the results with the customer.	Hour	\$52.14	\$75.86
P2750A	<b>Manual sample spotting (for MALDI mass spectrometric analysis)</b> Performed by IGGB staff if samples are not provided on an ABI4700 MALDI plate.	Spot	\$5.59	\$8.13
P2800A	<b>Spot/band excision from gel (minimum 20 spots/bands required)</b> Gel plugs will be deposited into 96 well plate(s).	Spot/band	\$16.48	\$23.98
P2850A	<b>In-gel digestion, desalting, and spotting (minimum 20 spots/bands required)</b> Peptides will be spotted on an ABI4700 MALDI plate(s).	Spot/band	\$26.05	\$37.90
P2900A	<b>WES capillary-based immunoassay (minimum 20 wells/run)</b> Customer should provide quantitated protein sample and primary antibody.	Well	\$27.58	\$40.13

## MASS SPECTROMETRY & PROTEIN IDENTIFICATION

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
P3050A	<b>1DE or 2DE gel spot isolation, digestion, and protein identification (minimum 20 spots/bands require)</b> Gel storage and shipment protocol will be provided on request.	Spot/band	\$41.15	\$59.87
P3100A	<b>Raw MSMS data collection via nano-LC nano-ESI, LTQ-Orbitrap-Velos (Thermo)</b> At least 2 ug of purified, detergent-free, protein digest is required per sample. The protein should be lyophilized or dissolved in an aqueous 2% v/v acetonitrile (HPLC grade), 0.1% v/v formic acid (HPLC grade) solution. The protein concentration of solutions must be at least 0.2 ug/ul. If column becomes clogged due to sample contaminants, the IGGB reserves the right to charge the customer all or part of the HPLC column replacement costs.	Gradient hr	\$96.26	\$140.06
P3150A	<b>Raw MSMS data collection via direct injection, LTQ-Orbitrap-Velos (Thermo)</b> The analyte must be salt and detergent free and dissolved either in aqueous acetonitrile (2-100% v/v, HPLC grade) or aqueous methanol(2-100% v/v, HPLC grade). The concentration of the analyte solution should be in the femto-nano mol per microliter range, and the minimum volume of analyte solution should be 10 microliters.	Hour	\$110.04	\$160.11
P3200A	<b>Protein identification from MSMS raw files</b> Results will be exported to .xls files, and the original analysis files will be provided.	Sample	\$29.82	\$43.39

## SANGER (CAPILLARY) DNA SEQUENCING

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
<b>G4000B</b>	<b>Sanger sequencing of clean plasmid prep or PCR product</b> Customers will be given a tube for each isolated plasmid or PCR product they want sequenced.	Reaction	\$8.73	\$12.70

## ILLUMINA LIBRARY PREP & SEQUENCING

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
<b>G4223B</b>	<b>Low input directional mRNA library with rRNA removal by Novogene; first library</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$334.88	\$487.25
<b>G4224B</b>	<b>Low input directional mRNA library with rRNA removal by Novogene; each additional library</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$310.80	\$452.21
<b>G4225B</b>	<b>Illumina library purification by Novogene</b> This service is for those who have made their own DNA libraries and wish Novogene to do standard clean-up of the aforementioned libraries.	Sample	\$47.22	\$68.71
<b>G4226B</b>	<b>Ultra low input cDNA library construction by Novogene; first library</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$334.88	\$487.25
<b>G4227B</b>	<b>Ultra low input cDNA library by Novogene; each additional library</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$310.80	\$452.21
<b>G4230B</b>	<b>DNA short-insert (500 bp or less) library construction by Novogene; first library</b> For Illumina sequencing. Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$134.88	\$196.25
<b>G4231B</b>	<b>DNA short-insert (500 bp or less) library construction by Novogene; each additional library up to 25</b> For Illumina sequencing. Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$110.80	\$161.21
<b>G4232B</b>	<b>DNA short-insert (500 bp or less) PCR-free library construction by Novogene; first library</b> For Illumina sequencing. Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$174.88	\$254.45

**ILLUMINA LIBRARY PREP & SEQUENCING - cont.**

<b>Cat No.</b>	<b>Service</b>	<b>Service Unit (SvU)</b>	<b>Internal Cost/SvU</b>	<b>External Cost/SvU</b>
<b>G4233B</b>	<b>DNA short-insert (500 bp or less) PCR-free library construction by Novogene; each additional library</b> For Illumina sequencing. Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$150.80	\$219.41
<b>G4234B</b>	<b>Eukaryotic directional mRNA library construction (NEB) by Novogene; first library</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$164.88	\$239.90
<b>G4235B</b>	<b>Eukaryotic directional mRNA library construction (NEB) by Novogene; each additional library up to 25</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$140.80	\$204.86
<b>G4238B</b>	<b>Prokaryotic/LncRNA/FFPE/total RNA library construction by Novogene; first library</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$334.88	\$487.25
<b>G4239B</b>	<b>Prokaryotic/LncRNA/FFPE/total RNA library construction by Novogene; each additional library up to 25</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$310.80	\$452.21
<b>G4240B</b>	<b>Small RNA library construction by Novogene; first library</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$314.88	\$458.15
<b>G4241B</b>	<b>Small RNA library construction by Novogene; each additional library up to 25</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$290.80	\$423.11
<b>G4244B</b>	<b>ChIP-Seq library construction by Novogene; first library</b> For Illumina sequencing. Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$134.88	\$196.25
<b>G4245B</b>	<b>ChIP-Seq library construction by Novogene; each additional library up to 25</b> For Illumina sequencing. Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$110.80	\$161.21

**ILLUMINA LIBRARY PREP & SEQUENCING - cont.**

<b>Cat No.</b>	<b>Service</b>	<b>Service Unit (SvU)</b>	<b>Internal Cost/SvU</b>	<b>External Cost/SvU</b>
<b>G4246B</b>	<b>Metagenomic library construction by Novogene; first library</b> For Illumina sequencing. Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$134.88	\$196.25
<b>G4247B</b>	<b>Metagenomic library construction by Novogene; each additional library up to 25</b> For Illumina sequencing. Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$110.80	\$161.21
<b>G4248B</b>	<b>Metatranscriptomic library construction by Novogene; first library</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$294.88	\$429.05
<b>G4249B</b>	<b>Metatranscriptomic library construction by Novogene; each additional library up to 25</b> For Illumina sequencing. Customer provides 0.5-4 ug total RNA in 10-30 ul nuclease-free water or 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$270.80	\$394.01
<b>G4250B</b>	<b>Microbial 16S/18S/ITS amplicon library construction and sequencing (PE250) with 1M raw reads by Novo</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$142.88	\$207.89
<b>G4251B</b>	<b>Microbial 16S/18S/ITS amplicon library construction and sequencing (PE250) with 1M raw reads by Novo</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$118.80	\$172.85
<b>G4252B</b>	<b>Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 30K</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$74.88	\$108.95
<b>G4253B</b>	<b>Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 30K</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$50.80	\$73.91
<b>G4254B</b>	<b>Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 50K</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$89.88	\$130.78

**ILLUMINA LIBRARY PREP & SEQUENCING - cont.**

<b>Cat No.</b>	<b>Service</b>	<b>Service Unit (SvU)</b>	<b>Internal Cost/SvU</b>	<b>External Cost/SvU</b>
<b>G4255B</b>	<b>Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 50K</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$65.80	\$95.74
<b>G4256B</b>	<b>Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 100K</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$104.88	\$152.60
<b>G4257B</b>	<b>Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 100K</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$80.80	\$117.56
<b>G4258B</b>	<b>Whole Genome Bisulfite Sequencing (WGBS) library construction by Novogene; first library</b> For Illumina sequencing. Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$334.88	\$487.25
<b>G4259B</b>	<b>Whole Genome Bisulfite Sequencing (WGBS) library construction by Novogene; each additional library u</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing. If requested, a barcode adaptor will be added to fragments used in library construction.	Library	\$310.80	\$452.21
<b>G4260B</b>	<b>Metagenomic 16S amplicon library prep</b> Customer provides at least 1 ug genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing.	Sample	\$21.80	\$31.72
<b>G4400B</b>	<b>Double-digest RADseq library preparation for genotyping</b> Double-digest RADseq (ddRADseq) is a reduced-representation technique that allows scientists to produce genotypes for a given organism without the prerequisite of a whole genome sequence. For information contact the IGBB's Genomics Lead.	Sample	\$121.65	\$177.00
<b>G4600B</b>	<b>MiSeq (1x150 bp or PE75)</b> A minimum sequence output of 10 million reads per lane (average) is guaranteed if library is prepared by IGBB. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nM (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by the IGBB.	Flow-cell lane	\$1,437.73	\$2,091.90
<b>G4650B</b>	<b>MiSeq (PE150)</b> A minimum sequence output of 10 million reads per lane (average) is guaranteed if library is prepared by IGBB. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nM (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by the IGBB.	Flow-cell lane	\$2,132.73	\$3,103.12
<b>G4700B</b>	<b>MiSeq (PE200)</b> A minimum sequence output of 10 million reads per lane (average) is guaranteed if library is prepared by IGBB. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nM (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by the IGBB.	Flow-cell lane	\$2,132.73	\$3,103.12

**ILLUMINA LIBRARY PREP & SEQUENCING - cont.**

<b>Cat No.</b>	<b>Service</b>	<b>Service Unit (SvU)</b>	<b>Internal Cost/SvU</b>	<b>External Cost/SvU</b>
<b>G4750B</b>	<b>MiSeq (PE250)</b> A minimum sequence output of 10 million reads per lane (average) is guaranteed if library is prepared by IGBB. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nm (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by the IGBB.	Flow-cell lane	\$2,132.73	\$3,103.12
<b>G4800B</b>	<b>MiSeq (PE300)</b> A minimum sequence output of 10 million reads per lane (average) is guaranteed if library is prepared by IGBB. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nm (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by the IGBB.	Flow-cell lane	\$2,132.73	\$3,103.12
<b>G4850B</b>	<b>MiSeq up to 300-cycle run where MiSeq reagent kit is provided by customer</b> A minimum sequence output of 10 million reads per lane (average) is guaranteed if library is prepared by IGBB. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nm (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by the IGBB.	Flow-cell lane	\$427.73	\$622.35
<b>G4900B</b>	<b>MiSeq greater than 300-cycle run where MiSeq reagent kit is provided by customer</b> A minimum sequence output of 10 million reads per lane (average) is guaranteed if library is prepared by IGBB. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nm (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by the IGBB.	Flow-cell lane	\$427.73	\$622.35
<b>G4910B</b>	<b>Illumina (PE150) by Novogene; cost per gigabase</b> Novogene only provides per Gb sequencing if it has made the Illumina library being sequenced.	Gbp	\$34.04	\$49.53
<b>G4911B</b>	<b>Illumina RNAseq (PE150) by Novogene if library/libraries made by Novogene; 12 gigabases</b> Novogene only provides per Gb sequencing if it has made the Illumina library being sequenced.	12 Gbp	\$232.04	\$337.62
<b>G4912B</b>	<b>Illumina (PE150) by Novogene if library/libraries not made by Novogene</b> If customers have had their library/libraries made by Novogene specifically for sequencing by Novogene, there is less work required of IGBB employees. This is reflected in the price.	100 Gbp	\$1,863.14	\$2,710.87
<b>G4913B</b>	<b>Illumina (PE150) by Novogene if library/libraries made by Novogene</b> A minimum sequence output of greater than or equal to 100 million reads per lane (average) is guaranteed if library is prepared by Novogene. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nm (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by Novogene.	100 Gbp	\$1,587.21	\$2,309.39
<b>G4914B</b>	<b>Illumina (1x50 bp) by Novogene if library/libraries made by Novogene; cost per million reads</b> If customers have had their library/libraries made by Novogene specifically for sequencing by Novogene, there is less work required of IGBB employees. This is reflected in the price.	1 M reads	\$36.04	\$52.44
<b>G4930B</b>	<b>NovaSeq S4 Flow Cell (PE150; 800 Gb raw data) by Novogene if library/libraries made by Novogene</b> If customers have had their library/libraries made by Novogene specifically for sequencing by Novogene, there is less work required of IGBB employees. This is reflected in the price.	Flow-cell lane	\$6,064.47	\$8,823.80



## ILLUMINA LIBRARY PREP & SEQUENCING - cont.

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
G4931B	<b>NovaSeq S4 Flow Cell (PE150; 800 Gb raw data) by Novogene if library/libraries not made by Novogene</b>  provides a library made elsewhere, the library should be at a concentration of 10 nm (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by Novogene.	Flow-cell lane	\$6,088.55	\$8,858.84
G4932B	<b>NovaSeq S4 Flow Cell (1x50 bp; 800 M reads) by Novogene if library/libraries made by Novogene</b>  A minimum sequence output of greater than or equal to 100 million reads per lane (average) is guaranteed if library is prepared by Novogene. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nm (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by Novogene.	Flow-cell lane	\$3,115.47	\$4,533.01
G4933B	<b>NovaSeq S4 Flow Cell (1x50 bp; 1600 M reads) by Novogene if library/libraries made by Novogene</b>  A minimum sequence output of greater than or equal to 100 million reads per lane (average) is guaranteed if library is prepared by Novogene. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nm (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by Novogene.	2 FC lanes	\$6,115.47	\$8,898.01
G4935B	<b>NovaSeq S4 Flow Cell (1x50 bp; 800 M reads) by Novogene if library/libraries not made by Novogene</b>  A minimum sequence output of greater than or equal to 100 million reads per lane (average) is guaranteed if library is prepared by Novogene. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nm (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by Novogene.	Flow-cell lane	\$3,139.55	\$4,568.05
G4936B	<b>NovaSeq S4 Flow Cell (1x50 bp; 1600 M reads) by Novogene if library/libraries not made by Novogene</b>  A minimum sequence output of greater than or equal to 100 million reads per lane (average) is guaranteed if library is prepared by Novogene. If the customer provides a library made elsewhere, the library should be at a concentration of 10 nm (minimum volume of 10 ul) in 10 mM Tris buffer (pH 8.5). There is no guarantee on reads per lane if the library is not generated by Novogene.	2 FC lanes	\$6,139.55	\$8,933.05

## PACIFIC BIOSCIENCES LIBRARY PREP & SEQUENCING

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
G5000B	<b>PacBio Sequel DNA library preparation (includes sample QC) by Novogene</b>  Contact IGBB Genomics Research Associate for details.	Library	\$883.02	\$1,284.79
G5100B	<b>PacBio Sequel SMRT sequencing (20 kb fragment library) by Novogene</b>  Contact IGBB Genomics Lead for details.	SMRT Cell	\$2,909.19	\$4,232.87

## OXFORD NANOPORE LIBRARY PREP & SEQUENCING

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
<b>G5500B</b>	<b>Nanopore DNA library preparation (includes sample QC)</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing.	Library	\$269.73	\$392.46
<b>G5510B</b>	<b>Nanopore barcoded DNA library preparation (includes sample QC) - Up to 12 libraries</b> Customer provides at least 2 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing.	Library	\$296.32	\$431.15
<b>G5515B</b>	<b>Nanopore barcode</b> Purchased in bulk by IGGB. Available to IGGB customers at cost-recovery price.	Sample	\$4.00	\$5.82
<b>G5525B</b>	<b>Amplicon preparation for Nanopore barcoding DNA library prep</b> Contact IGGB Genomics Research Associate for details.	Reaction	\$14.19	\$20.65
<b>G5550B</b>	<b>Nanopore GridION sequencing (MinION flow cell)</b> The IGGB will only sequence libraries made by the IGGB (see G5500B and G5510B).	Flow-cell	\$1,258.59	\$1,831.25
<b>G5570B</b>	<b>Nanopore GridION sequencing (Flongle flow cell)</b> The IGGB will only sequence libraries made by the IGGB (see G5500B and G5510B).	Flow-cell	\$223.59	\$325.32

## NUCLEIC ACID PREP, QPCR & SEQUENCE ANALYSIS

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
<b>G6000C</b>	<b>Basic Assembly</b> Customer can select between SOAPDenovo or ABySS (discuss merits of each with research associate). Customer should provide fastq files, experiment design metadata, and any non-default parameters.	Per Order	\$760.32	\$1,106.27
<b>G6050C</b>	<b>RNA-Seq Differential Expression</b> Customer needs to provide a valid GFF annotation file, FASTA sequence database, FASTQ files, and experiment design metadata.	Per Order	\$1,011.52	\$1,471.76
<b>G6075B</b>	<b>Fresh tissue DNA/RNA extraction and regular QC by Novogene</b> Consult with IGGB Genomics Lead.	Sample	\$57.22	\$83.26
<b>G6080B</b>	<b>Formalin-fixed paraffin-embedded (FFPE) tissue DNA/RNA extraction and regular QC by Novogene</b> Consult with IGGB Genomics Lead.	Sample	\$82.22	\$119.63
<b>G6100B</b>	<b>qPCR analysis</b> All reagents, plasticware, etc., should be provided by the customer.	Run	\$211.44	\$307.65
<b>G6125B</b>	<b>Genomic DNA fragmentation with Covaris g-TUBE</b> Customer provides at least 1 ug high molecular weight genomic DNA in 20-50 ul 10 mM Tris buffer (pH 8.5). Samples that do not meet minimum standards will be returned without further processing.	Sample	\$31.80	\$46.27
<b>G6150B</b>	<b>Nucleic acid sample prep using Covaris</b> Shearing tubes and reagents are the responsibility of the customer (contact the IGGB for details).	Sample	\$20.22	\$29.42

## BIOMOLECULE QUANTIFICATION & PURITY ANALYSIS

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
<b>M7000D</b>	<b>Bioanalyzer analysis (if reagents and chips are supplied by the user)</b>  responsibility of the customer.  The IGBB will provide the chip and reagents.  Qubit reagents and sample tubes will be provided by the IGBB.  Qubit reagents and sample tubes will be provided by the IGBB.  Pipets, Kimwipes, and ddH2O will be provided by the IGBB. Customers must provide an appropriate blank solution(s) for the spectrophotometer.  Pipets, Kimwipes, and ddH2O will be provided by the IGBB. Customers must provide an appropriate blank solution(s) for the spectrophotometer.	Run	\$67.36	\$98.01
<b>M7200D</b>	<b>Fragment analyzer analysis (if reagents and materials are supplied by the user); 40 min run time</b> Customer is responsible for all reagents/support equipment including 96-well plates, centrifuge tubes, a capillary array cartridge(s), pipet tips, etc.	Row	\$55.33	\$80.51
<b>M7205D</b>	<b>Fragment analyzer analysis (if reagents and materials are supplied by the IGBB); 40 min run time</b> All plasticware and reagents will be provided by the IGBB.	Row	\$71.00	\$103.31
<b>M7270D</b>	<b>Regular DNA QC (gel and Qubit) by Novogene</b> Novogene now bills sample QC separately from library construction, sample preparation, and DNA sequencing.	Sample	\$47.22	\$68.71
<b>M7275D</b>	<b>Regular RNA QC (Agilent 2100) by Novogene</b> Novogene now bills sample QC separately from library construction, sample preparation, and DNA sequencing.	Sample	\$47.22	\$68.71
<b>M7280D</b>	<b>Regular Illumina library QC (Qubit, Agilent 2100, and qPCR) by Novogene</b> Novogene now bills sample QC separately from library construction, sample preparation, and DNA sequencing.	Sample	\$47.22	\$68.71
<b>M7285D</b>	<b>Pulsed-field gel electrophoresis (PFGE); 1-43 samples</b> All reagents will be provided by the IGBB. Customers will receive an electronic image of the gel and instructions on determining molecular weight values of their samples.	Gel	\$151.84	\$220.93
<b>M7290D</b>	<b>Pulsed field gel electrophoresis (PFGE) by Novogene</b> PFGE isolation of high molecular weight nucleic acids. PFGE alternatively available as service by IGBB staff (see M7285D) at a much lower price or as a self-service activity (see U8910B).	Sample	\$82.22	\$119.63

**SELF-SERVICE EQUIPMENT USE (BY TRAINED USER)**

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External
	Customer can reserve a machine by contacting the IGBB Proteomics Lead.			
	Customer can reserve a machine by contacting the IGBB Proteomics Lead.			
	Proteomics Lead.			
	machine use. Purchase and storage of chips and reagents for Bioanalyzer are the responsibility of the customer. Customer can reserve a machine by contacting the IGBB Genomics Lead or Lab Manager.			
	machine use. One chip and reagents are provided by the IGBB. Customer can reserve a machine by contacting the IGBB Genomics Lead or Lab Manager.			
	machine use. Reagents, pipet tips, pipettors, Kimwipes, etc., are the responsibility of the customer. Purchase of U8350D affords customer 6 months access to Nanodrop. Customer can reserve a machine by contacting the IGBB Lab Manager.			
	machine use. All reagents, plasticware, etc., are the responsibility of the customer. Customer can reserve a machine by contacting the IGBB Genomics Lead.			
	Customer must complete user training (T8450B). Qubit reagents and sample tubes are the responsibility of the customer. Purchase of U8450B affords customer 6 months access to Qubit. Customer can reserve a machine by contacting the IGBB Genomics Lead.			
	Customer must complete user training (T8450B). Qubit reagents and sample tubes are supplied by the IGBB. Customer can reserve a machine by contacting the IGBB Genomics Lead.			
	contacting the IGBB Genomics Lead.			
<b>U8900B</b>	<b>Fragment analyzer analysis (if reagents and materials are supplied by the user); 40 min run time</b>	Row	\$11.99	\$17.45
	Customer must successfully complete user training (T8900B) prior to solo machine use. Customer is responsible for all reagents/support equipment including 96-well plates, centrifuge tubes, a capillary array cartridge(s), pipet tips, etc. Customer can reserve a machine by contacting the IGBB Genomics Lead.			

## SELF-SERVICE EQUIPMENT USE (BY TRAINED USER) - cont.

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
U8901B	<b>Fragment analyzer analysis (if reagents and materials are supplied by the user); 240 min run time</b>	Plate	\$21.62	\$31.46
	Lead.			
	machine by contacting the IGBB Genomics Lead.			
U8920A	<b>Protean isoelectric focusing; customer provides reagents</b> Customer must successfully complete user training (T8920A) prior to solo machine use. Customer should start with quantified protein sample dissolved in IEF compatible buffer. All reagents including IPG strips are the responsibility of the customer. Customer can reserve a machine by contacting the IGBB Proteomics Lead.	Run	\$25.29	\$36.80

## CUSTOMER TRAINING

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
T8000A	<b>Training for U8000A and U8050A (Covaris, protein)</b> No individual will be allowed to use the instrument(s) until they have demonstrated proficiency on the machine as judged by the IGBB staff member in charge of the training. Multiple training sessions may be prescribed for some individuals. Tissue and homogenization tubes will be provided by the IGBB.	Session	\$67.71	\$98.52
T8150A	<b>Training for U8150A (CyDye gel imaging)</b> No individual will be allowed to use the instrument(s) until they have demonstrated proficiency on the machine as judged by the IGBB staff member in charge of the training. Multiple training sessions may be prescribed for some individuals. All reagents, plasticware, etc., will be provided by the customer.	Session	\$145.39	\$211.54
T8250D	<b>Training for U8250D and U8300D (Bioanalyzer)</b> No individual will be allowed to use the instrument(s) until they have demonstrated proficiency on the machine as judged by the IGBB staff member in charge of the training. Multiple training sessions may be prescribed for some individuals. The IGBB will provide chips and other reagents for the training session.	Session	\$102.52	\$149.17
T8350D	<b>Training for U8350D (Nanodrop)</b> No individual will be allowed to use the instrument(s) until they have demonstrated proficiency on the machine as judged by the IGBB staff member in charge of the training. Multiple training sessions may be prescribed for some individuals. Sample(s) and blank should be provided by customer. Pipet tips, pipettors, Kimwipes, and ddH <sub>2</sub> O will be provided by IGBB.	Session	\$16.51	\$24.02
T8400B	<b>Training for U8400B (qPCR)</b> No individual will be allowed to use the instrument(s) until they have demonstrated proficiency on the machine as judged by the IGBB staff member in charge of the training. Multiple training sessions may be prescribed for some individuals. All reagents, plasticware, etc., are provided by the customer. Contact the IGBB Genomics Lead research associate for details.	Session	\$115.15	\$167.54

## CUSTOMER TRAINING - cont.

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
<b>T8450B</b>	<b>Training for U8450B and U8500B (Qubit fluorometer)</b> No individual will be allowed to use the instrument(s) until they have demonstrated proficiency on the machine as judged by the IGBB staff member in charge of the training. Multiple training sessions may be prescribed for some individuals. Qubit reagents & sample tubes will be provided by the IGBB.	Session	\$35.27	\$51.32
<b>T8550B</b>	<b>Training for U8550B (Covaris, nucleic acid)</b> No individual will be allowed to use the instrument(s) until they have demonstrated proficiency on the machine as judged by the IGBB staff member in charge of the training. Multiple training sessions may be prescribed for some individuals. Pipets, Kimwipes, and ddH2O will be provided by the IGBB. Customer will provide appropriate Covaris sample tube (contact the IGBB for details).	Session	\$56.44	\$82.12
<b>T8700A</b>	<b>Training in 2D PAGE</b> Customer will provide quantified protein sample dissolved in IEF compatible buffer. Consult IGBB staff. One precast gel and appropriate stains and MW ladders/standards will be provided by the IGBB. Customers should not provide valuable samples as training sessions are designed to help customers develop skills, not produce positive results or usable data.	Session (3 h)	\$278.47	\$405.17
<b>T8750A</b>	<b>Training in protein extraction (TCA precipitation protocol)</b> Customer will provide all required tissue. Reagents will be provided by the IGBB. Customers should not provide valuable samples as training sessions are designed to help customers develop skills, not produce positive results or usable data.	Session (2 hr)	\$109.57	\$159.42
<b>T8755A</b>	<b>Training in protein extraction (phenol extraction protocol)</b> Reagent costs are calculated for 1 g of tissue. Reagents and solutions will be provided by the IGBB. The training sessions are not expected to conclude with positive results or usable data.	Sample	\$294.24	\$428.12
<b>T8900B</b>	<b>Training for U8900B, U8901B, and U8902B (Fragment Analyzer)</b> Reagents will be provided by the IGBB. The training sessions are not expected to conclude with positive results or usable data.	Session	\$82.40	\$119.89
<b>T8910B</b>	<b>Training in pulsed-field gel electrophoresis (PFGE); 1 gel</b> Customer can provide sample or sample can be provided by IGBB staff. All reagents/support equipment including agarose, MW ladders, buffers, pipet tips, etc., will be supplied by the IGBB. The training sessions are not expected to conclude with positive results or usable data. Customer sample number is limited to 14 for this training exercise.	Session	\$194.74	\$283.35
<b>T8920A</b>	<b>Training in isoelectric focusing (IEF)</b> Customer will provide quantified protein sample dissolved in IEF compatible buffer. Consult IGBB staff. One IPG strip will be provided by IGBB. Customers should not provide valuable samples as training sessions are designed to help customers develop skills, not produce positive results or usable data.	Hour	\$65.33	\$95.06
<b>T9000B</b>	<b>Training in in-solution digestion of proteins (about 4 hr)</b> Tissue should be supplied by trainee. Reagents will be provided by the IGBB. The training sessions are not expected to conclude with positive results or usable data.	Session (4 hr)	\$189.67	\$275.97