



Institute for Genomics, Biocomputing & Biotechnology

Director: Daniel G. Peterson

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
P1000A	Protein sample prep using Covaris S220 Reagents and plasticware will be provided by the IGBB.	Sample	\$75.49	\$109.84
P1100A	Protein fractionation by Sage ELF Consult with IGBB Proteomics Lead.	Sample	\$148.75	\$216.43
P1200A	In-solution digestion of proteins; batch of 10 or fewer samples Tissue should be supplied by customer.	Batch	\$162.39	\$236.28
P1250A	TCA-based protein isolation; first sample Reagent costs are calculated for 1 g of tissue. Reagents and solutions will be provided by the IGBB.	Sample	\$109.57	\$159.42
P1255A	TCA-based protein isolation; each additional sample Reagent costs are calculated for 1 g of tissue. Reagents and solutions will be provided by the IGBB.	Sample	\$41.64	\$60.59
P1300A	Phenol-based protein extraction; first sample Reagent costs are calculated for 1 g of tissue. Reagents and solutions will be provided by the IGBB.	Sample	\$294.24	\$428.12
P1305A	Phenol-based protein extraction; each additional sample 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
P2000A	Isoelectric focusing (IEF) 11 cm strip; first strip Customer must provide quantified protein sample dissolved in IEF compatible buffer (ask IGBB staff for details).	Strip	\$42.57	\$61.94
P2050A	Isoelectric focusing (IEF) 11 cm strip; additional strips up to 12 Customer must provide quantified protein sample dissolved in IEF compatible buffer (ask IGBB staff for details).	Strip	\$21.81	\$31.73
P2100A	Isoelectric focusing (IEF) 17 cm strip; first strip Customer must provide quantified protein sample dissolved in IEF compatible buffer (ask IGBB staff for details).	Strip	\$44.41	\$64.62
P2150A	Isoelectric focusing (IEF) 17 cm strip; additional strips up to 12 Customer must provide quantified protein sample dissolved in IEF compatible buffer (ask IGBB staff for details).	Strip	\$23.64	\$34.40
P2200A	2D PAGE on slab gel; first gel Customer provides precast gel of their choice.	Gel	\$109.04	\$158.65
P2250A	2D PAGE on slab gel; second gel Customer provides precast gel(s) of their choice.	Gel	\$24.88	\$36.20
P2300A	Gel staining with Coomassie Blue	Gel	\$21.40	\$31.14
P2350A	Gel staining with Sypro Ruby	Gel	\$90.44	\$131.59
P2400A	Visual and UV protein gel imaging	Gel	\$20.44	\$29.74
P2450A	Gel analysis with PD Quest software	Hour	\$52.14	\$75.86
P2500A	CyDye protein labeling for 2D DIGE, 1st dye 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
P2550A	CyDye protein labeling for 2D DIGE, 2nd dye 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	CyDye protein labeling for 2D DIGE, 3rd dye 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	CyDye stained gel imaging Reagents, plasticware, etc., are the responsibility of the customer.	Hour	\$110.10	\$160.20
P2700A	DIGE gel analysis using DeCyder software IGBB staff will conduct the analysis and discuss the results with the customer.	Hour	\$52.14	\$75.86
P2750A	Manual sample spotting (for MALDI mass spectrometric analysis) Performed by IGBB staff if samples are not provided on an ABI4700 MALDI plate.	Spot	\$5.59	\$8.13
P2800A	Spot/band excision from gel (minimum 20 spots/bands required) Gel plugs will be deposited into 96 well plate(s).	Spot/band	\$16.48	\$23.98
P2850A	In-gel digestion, desalting, and spotting (minimum 20 spots/bands required) Peptides will be spotted on an ABI4700 MALDI plate(s).	Spot/band	\$26.05	\$37.90
P2900A	WES capillary-based immunoassay (minimum 20 wells/run) 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	1DE or 2DE gel spot isolation, digestion, and protein identification (minimum 20 spots/bands require) Gel storage and shipment protocol will be provided on request.	Spot/band	\$41.15	\$59.87
P3100A	Raw MSMS data collection via nano-LC nano-ESI, LTQ-Orbitrap-Velos (Thermo) 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 IGBB reserves the right to charge the customer all or part of the HPLC column replacement costs.	Gradient hr	\$96.26	\$140.06
P3150A	Raw MSMS data collection via direct injection, LTQ-Orbitrap-Velos (Thermo) 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	Protein identification from MSMS raw files 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
G4000B	Sanger sequencing of clean plasmid prep or PCR product 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
G4223B	Low input directional mRNA library with rRNA removal by Novogene; first library 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
G4224B	Low input directional mRNA library with rRNA removal by Novogene; each additional library 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
G4225B	Illumina library purification by Novogene 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
G4226B	Ultra low input cDNA library construction by Novogene; first library 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
G4227B	Ultra low input cDNA library by Novogene; each additional library 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
G4230B	DNA short-insert (500 bp or less) library construction by Novogene; first library 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
G4231B	DNA short-insert (500 bp or less) library construction by Novogene; each additional library up to 25 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
G4232B	DNA short-insert (500 bp or less) PCR-free library construction by Novogene; first library 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.

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
G4233B	DNA short-insert (500 bp or less) PCR-free library construction by Novogene; each additional library 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
G4234B	Eukaryotic directional mRNA library construction (NEB) by Novogene; first library 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
G4235B	Eukaryotic directional mRNA library construction (NEB) by Novogene; each additional library up to 25 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
G4238B	Prokaryotic/LncRNA/FFPE/total RNA library construction by Novogene; first library 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
G4239B	Prokaryotic/LncRNA/FFPE/total RNA library construction by Novogene; each additional library up to 25 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
G4240B	Small RNA library construction by Novogene; first library 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
G4241B	Small RNA library construction by Novogene; each additional library up to 25 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
G4244B	ChIP-Seq library construction by Novogene; first library 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
G4245B	ChIP-Seq library construction by Novogene; each additional library up to 25 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.

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
G4246B	Metagenomic library construction by Novogene; first library 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
G4247B	Metagenomic library construction by Novogene; each additional library up to 25 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
G4248B	Metatranscriptomic library construction by Novogene; first library 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
G4249B	Metatranscriptomic library construction by Novogene; each additional library up to 25 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
G4250B	Microbial 16S/18S/ITS amplicon library construction and sequencing (PE250) with 1M raw reads by Novo 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
G4251B	Microbial 16S/18S/ITS amplicon library construction and sequencing (PE250) with 1M raw reads by Novo 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
G4252B	Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 30K 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
G4253B	Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 30K 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
G4254B	Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 50K 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.

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
G4255B	Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 50K 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
G4256B	Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 100K 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
G4257B	Microbial 16S/18S/ITS amplicon library construction, sequencing (PE250), and data analysis with 100K 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
G4258B	Whole Genome Bisulfite Sequencing (WGBS) library construction by Novogene; first library 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
G4259B	Whole Genome Bisulfite Sequencing (WGBS) library construction by Novogene; each additional library u 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
G4260B	Metagenomic 16S amplicon library prep 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
G4400B	Double-digest RADseq library preparation for genotyping 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
G4600B	MiSeq (1x150 bp or PE75) 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
G4650B	MiSeq (PE150) 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
G4700B	MiSeq (PE200) 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.

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
G4750B	MiSeq (PE250) 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
G4800B	MiSeq (PE300) 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
G4850B	MiSeq up to 300-cycle run where MiSeq reagent kit is provided by customer 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
G4900B	MiSeq greater than 300-cycle run where MiSeq reagent kit is provided by customer 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
G4910B	Illumina (PE150) by Novogene; cost per gigabase Novogene only provides per Gb sequencing if it has made the Illumina library being sequenced.	Gbp	\$34.04	\$49.53
G4911B	Illumina RNAseq (PE150) by Novogene if library/libraries made by Novogene; 12 gigabases Novogene only provides per Gb sequencing if it has made the Illumina library being sequenced.	12 Gbp	\$232.04	\$337.62
G4912B	Illumina (PE150) by Novogene if library/libraries not made by Novogene 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
G4913B	Illumina (PE150) by Novogene if library/libraries made by Novogene 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
G4914B	Illumina (1x50 bp) by Novogene if library/libraries made by Novogene; cost per million reads 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
G4930B	NovaSeq S4 Flow Cell (PE150; 800 Gb raw data) by Novogene if library/libraries made by Novogene 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	NovaSeq S4 Flow Cell (PE150; 800 Gb raw data) by Novogene if library/libraries not made by Novogene 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	\$6,088.55	\$8,858.84
G4932B	NovaSeq S4 Flow Cell (1x50 bp; 800 M reads) by Novogene if library/libraries made by Novogene 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	NovaSeq S4 Flow Cell (1x50 bp; 1600 M reads) by Novogene if library/libraries made by Novogene 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	NovaSeq S4 Flow Cell (1x50 bp; 800 M reads) by Novogene if library/libraries not made by Novogene 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	NovaSeq S4 Flow Cell (1x50 bp; 1600 M reads) by Novogene if library/libraries not made by Novogene 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	PacBio Sequel DNA library preparation (includes sample QC) by Novogene Contact IGBB Genomics Research Associate for details.	Library	\$883.02	\$1,284.79
G5100B	PacBio Sequel SMRT sequencing (20 kb fragment library) by Novogene 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
G5500B	Nanopore DNA library preparation (includes sample QC) 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
G5510B	Nanopore barcoded DNA library preparation (includes sample QC) - Up to 12 libraries 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
G5515B	Nanopore barcode Purchased in bulk by IGGB. Available to IGGB customers at cost-recovery price.	Sample	\$4.00	\$5.82
G5525B	Amplicon preparation for Nanopore barcoding DNA library prep Contact IGGB Genomics Research Associate for details.	Reaction	\$14.19	\$20.65
G5550B	Nanopore GridION sequencing (MinION flow cell) The IGGB will only sequence libraries made by the IGGB (see G5500B and G5510B).	Flow-cell	\$1,258.59	\$1,831.25
G5570B	Nanopore GridION sequencing (Flongle flow cell) 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
G6000C	Basic Assembly 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
G6050C	RNA-Seq Differential Expression 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
G6075B	Fresh tissue DNA/RNA extraction and regular QC by Novogene Consult with IGGB Genomics Lead.	Sample	\$57.22	\$83.26
G6080B	Formalin-fixed paraffin-embedded (FFPE) tissue DNA/RNA extraction and regular QC by Novogene Consult with IGGB Genomics Lead.	Sample	\$82.22	\$119.63
G6100B	qPCR analysis All reagents, plasticware, etc., should be provided by the customer.	Run	\$211.44	\$307.65
G6125B	Genomic DNA fragmentation with Covaris g-TUBE 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
G6150B	Nucleic acid sample prep using Covaris 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
M7000D	Bioanalyzer analysis (if reagents and chips are supplied by the user) Purchase and storage of chips and reagents for Bioanalyzer are the responsibility of the customer.	Run	\$67.36	\$98.01
M7050D	Bioanalyzer analysis (if reagents and chip are supplied by the IGBB) The IGBB will provide the chip and reagents.	Run	\$108.36	\$157.66
M7100D	Qubit (fluorometric) sample quantification; first sample Qubit reagents and sample tubes will be provided by the IGBB.	Sample	\$7.30	\$10.62
M7105D	Qubit (fluorometric) sample quantification; each additional sample Qubit reagents and sample tubes will be provided by the IGBB.	Sample	\$2.70	\$3.93
M7150D	Nanodrop analysis; first sample Pipets, Kimwipes, and ddH ₂ O will be provided by the IGBB. Customers must provide an appropriate blank solution(s) for the spectrophotometer.	Sample	\$3.82	\$5.56
M7155D	Nanodrop analysis; each additional sample Pipets, Kimwipes, and ddH ₂ O will be provided by the IGBB. Customers must provide an appropriate blank solution(s) for the spectrophotometer.	Sample	\$1.62	\$2.36
M7200D	Fragment analyzer analysis (if reagents and materials are supplied by the user); 40 min run time 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
M7205D	Fragment analyzer analysis (if reagents and materials are supplied by the IGBB); 40 min run time All plasticware and reagents will be provided by the IGBB.	Row	\$71.00	\$103.31
M7270D	Regular DNA QC (gel and Qubit) by Novogene Novogene now bills sample QC separately from library construction, sample preparation, and DNA sequencing.	Sample	\$47.22	\$68.71
M7275D	Regular RNA QC (Agilent 2100) by Novogene Novogene now bills sample QC separately from library construction, sample preparation, and DNA sequencing.	Sample	\$47.22	\$68.71
M7280D	Regular Illumina library QC (Qubit, Agilent 2100, and qPCR) by Novogene Novogene now bills sample QC separately from library construction, sample preparation, and DNA sequencing.	Sample	\$47.22	\$68.71
M7285D	Pulsed-field gel electrophoresis (PFGE); 1-43 samples 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
M7290D	Pulsed field gel electrophoresis (PFGE) by Novogene 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 Cost/SvU
U8000A	Protein sample prep using Covaris (shearing tubes provided by user) Customer must successfully complete user training (T8000A) prior to solo machine use. Tissue and homogenization tubes will be provided by the IGBB. Customer can reserve a machine by contacting the IGBB Proteomics Lead.	Sample	\$18.50	\$26.92
U8050A	Protein sample prep using Covaris (shearing tubes provided by IGBB) Customer must successfully complete user training (T8000A) prior to solo machine use. Tissue and homogenization tubes will be provided by the IGBB. Customer can reserve a machine by contacting the IGBB Proteomics Lead.	Sample	\$32.75	\$47.65
U8150A	CyDye-stained gel imaging Customer must successfully complete user training (T8150A) prior to solo machine use. Reagents, plasticware, etc., are the responsibility of the customer. Customer can reserve a machine by contacting the IGBB Proteomics Lead.	Hour	\$42.50	\$61.84
U8250D	Bioanalyzer analysis (if reagents and chip are supplied by the user) Customer must successfully complete user training (T8250D) prior to solo 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.	Run	\$16.81	\$24.46
U8300D	Bioanalyzer analysis (if reagents and chip are supplied by IGBB) Customer must successfully complete user training (T8250D) prior to solo 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.	Run	\$56.81	\$82.66
U8350D	Nanodrop analysis Customer must successfully complete user training (T8350D) prior to solo 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.	6 mo access	\$21.34	\$31.05
U8400B	qPCR Customer must successfully complete user training (T8400B) prior to solo machine use. All reagents, plasticware, etc., are the responsibility of the customer. Customer can reserve a machine by contacting the IGBB Genomics Lead.	Run	\$22.67	\$32.98
U8450B	Qubit (fluorometric) quantification (if reagents and tube are supplied by user) 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.	6 mo access	\$21.34	\$31.05
U8500B	Qubit (fluorometric) quantification (if reagents and tube are supplied by IGBB) 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.	Sample	\$1.66	\$2.42
U8550B	Nucleic acid sonication (Covaris) Customer must successfully complete user training (T8550B) prior to solo machine use. Shearing tubes and reagents are the responsibility of the customer (contact the IGBB for details). Customer can reserve a machine by contacting the IGBB Genomics Lead.	Sample	\$11.99	\$17.45
U8900B	Fragment analyzer analysis (if reagents and materials are supplied by the user); 40 min run time 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.	Row	\$11.99	\$17.45

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

Cat No.	Service	Service Unit (SvU)	Internal Cost/SvU	External Cost/SvU
U8901B	Fragment analyzer analysis (if reagents and materials are supplied by the user); 240 min run time 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.	Plate	\$21.62	\$31.46
U8902B	Fragment analyzer analysis (if reagents and materials are supplied by the IGBB); 40 min run time Customer must successfully complete user training (T8900B) prior to solo machine use. The IGBB will provide plasticware and reagents. Customer can reserve a machine by contacting the IGBB Genomics Lead.	Row	\$26.66	\$38.79
U8910B	Pulsed-field gel electrophoresis (PFGE); customer supplies reagents Customer must successfully complete user training (T8910B) prior to solo machine use. Customer is responsible for all reagents/support equipment including agarose, MW ladders, buffers, pipet tips, etc. Customer can reserve a machine by contacting the IGBB Genomics Lead.	Gel	\$21.62	\$31.46
U8920A	Protean isoelectric focusing; customer provides reagents 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	Training for U8000A and U8050A (Covaris, protein) 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	Training for U8150A (CyDye gel imaging) 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	Training for U8250D and U8300D (Bioanalyzer) 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	Training for U8350D (Nanodrop) 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 ₂ O will be provided by IGBB.	Session	\$16.51	\$24.02
T8400B	Training for U8400B (qPCR) 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
T8450B	Training for U8450B and U8500B (Qubit fluorometer) 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
T8550B	Training for U8550B (Covaris, nucleic acid) 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 ddH ₂ O will be provided by the IGBB. Customer will provide appropriate Covaris sample tube (contact the IGBB for details).	Session	\$56.44	\$82.12
T8700A	Training in 2D PAGE 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
T8750A	Training in protein extraction (TCA precipitation protocol) 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
T8755A	Training in protein extraction (phenol extraction protocol) 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
T8900B	Training for U8900B, U8901B, and U8902B (Fragment Analyzer) 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
T8910B	Training in pulsed-field gel electrophoresis (PFGE); 1 gel 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
T8920A	Training in isoelectric focusing (IEF) 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
T9000B	Training in in-solution digestion of proteins (about 4 hr) 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