

DOWNLOAD PAGE FOR LIMS28866

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Data Download

- <u>Trimmed data</u>, suitable for most downstream analyses. See <u>below</u> for details of the trimming pipeline.
- <u>Raw data</u>. Statistics only. Please note that we do not routinely provide access to the untrimmed sequence files, since we recommend that the trimmed data are used for most downstream analyses.

To download multiple files we recommend using <u>wget</u>. This is likely to be already installed on Linux, and is available for <u>Windows</u> and <u>Mac</u>. To download all the trimmed data files use the command:

wget -r --cut-dirs=2 -np -nH -R "index.html*" https://cgr.liv.ac.uk/illum/LIMS28866_1d518edb8da77ccc/Trimmed/

This will create a directory "Trimmed" containing all the .fastq.gz files. Be sure to copy the command exactly and include the trailing "/".

The sequence files are in .fastq.gz format. This is a version of the text <u>FASTQ</u> format, which has been binary compressed using <u>gzip</u> to reduce the file sizes. Many analysis programs such as <u>SPAdes</u> and <u>BWA</u> can read .fastq.gz files directly, however for some software packages you may need to decompress the files using <u>gunzip</u> or <u>7-zip</u>.

For paired-end sequence data, there are three sequence file types. The files labelled R1 and R2 contain the corresponding paired-end sequences. The singlet files contain sequences whose pair has been removed due to poor sequence quality or adapter contamination. If a sample has been sequenced several times, there will be several sets of sequence files in the sample directory. These will need to be concatenated before downstream analysis.

Summary Statistics

Diagram illustrating the total number of reads obtained for each sample.



Paired reads Singlet reads Reads discarded due to adapter contamination or poor quality

Box plot showing the distribution of trimmed read lengths for the forward (R1), reverse (R2) and singlet (R0) reads. Note that it is common for a small number of reads to consist of mostly adapter-derived sequence, so it is expected that the distribution will show a long tail.

Read Length (b.p.)	40- 20- 80- 60- 40- 20-																																									
	U 10 10 10 10 10 10 10 10 10 10 10 10 10	Sample 1-GT1 R1	Sample_1-GT1 R2	Sample_2-GT2 R0	Sample_2-GT2 R1	Sample_2-GT2 R2	Sample_3-G13 RU Sample_3-GT3 R1	Sample 3-GT3 R2	Sample_4-GT4 R0	Sample_4-GT4 R1	Sample_4-GT4 R2	Sample_5-GT5 R0	Sample 5-GT5 R2	Sample 6-GT6 R0	Sample_6-GT6 R1	Sample_6-GT6 R2	Sample_7-GT7 R0	Sample_7-GT7 R1	Sample_7-GT7 R2	Sample_8-GT8 R0	Sample_6-018 RI	Sample_0.010 FZ	Sample_9-GT9_R1	Sample 9-GT9 R2	Sample_10-GT11 R0	Sample_10-GT11 R1	Sample_10-GT11 R2	Sample_11-GT12 R0	Sample_11.GT12 P2 Sample_11.GT12 P2	Sample 12-GT13 R0	Sample_12-GT13 R1	Sample_12-GT13 R2	Sample_13-GT14 R0	Sample_13-6114 K1	Sample_13-G114 K2 Sample_14-GT15 R0	5ample 14-GT15R1	Sample_14-GT15 R2	Sample_15-GT16 R0	Sample_15-GT16 R1	Sample_15-GT16 R2	Sample_16-G11/ RU Sample_16-GT17 P1	Sample_16-GT17 R2
Read Length (b.p.)	40- 20- 80- 60- 40- 20-																																									
Read Length (b.p.)	40- 20- 60- 40- 20- 40- 20- 20- 20- 20- 20- 20- 20- 20- 20- 2		Sample_17-GT18 R2	Sample_18-GT19 R0	Sample_18-GT19 R1	Sample_18-GT19 R2	Sample_19-6120 KU	Sample 19-GT20 R2	Sample_20-GT21 R0	Sample_20-GT21 R1	Sample_20-GT21 R2	Sample_21.6T22 R0		Sample 22-GT23R0	Sample_22-GT23 R1	Sample_22-GT23 R2	Sample_23-GT24 R0	Sample_23-GT24 R1	Sample_23-GT24 R2	Sample_24-GT26 R0		Sample_24-0120 K2		Sample 25-GT27 R2	Sample_26-GT28 R0	Sample_26-GT28 R1	Sample_26-GT28 R2	Sample_27-GT29 R0	Sample_27-6129 RI	Sample 28-GT30 R0	Sample_28-GT30 R1	Sample_28-GT30 R2	Sample_29-GT31 R0	Sample_29-6131 R1	Sample_29-6131 R2	Sample 30-6T32 R1	Sample 30-GT32 R2	Sample_31-GT33 R0	Sample_31-GT33 R1	Sample_31-GT33 R2	Sample_32-6134 R0	Cample_22.6T34.R2
Read Length (b.p.)	40- 60- 40- 60- 40- 20- 20- 40- 20- 40- 20- 40- 20- 40- 20- 40- 20- 40- 20- 40- 20- 20- 20- 20- 20- 20- 20- 2		Cample 33-6735 R2	Sample_34.6T36 R0	Sample_34-GT36 R1	Sample_34-GT36 R2	Sample_35-G138 R0	Sample 35-GT38 R2	Sample_36-GT40 R0	Sample_36-GT40 R1	Sample_36-GT40 R2	Sample_37-GT41 R0		Sample 38-GT42 R0	Sample_38-GT42 R1	Sample_38-GT42 R2	E 29-GT44 R0	Sample_39-GT44 R1	39-GT44 R2	Sample_40-GT45 R0		Sample_10.012112	Sample_1-1-01-01-01-01-01-01-01-01-01-01-01-01-	Sample_41-GT46 R2	Sample_42-GT48 R0	Sample_42:GT48 R1	Sample_42.GT48 R2	Sample_43-G149 R0	Sample_43-0149 KI	Sample 44-GT50 R0	Sample_44-GT50 R1	Sample_44-GT50 R2	Sample_45-GT52 R0		Sample_45-G152 K2	Sample 46-GT54 R1	Sample_46-GT54 R2	Sample_47-GT55 R0	Sample_47.6T55 R1	Sample_47-GT55 R2	Sample_48-6150 KU	Sample_48-GT56 R2
tead Length (b.p.)	40- 60- 40- 60- 40-	Sample 49-GT57 R1	Sample_49-GT57 R2	Sample_50-GT60 R0	Sample_50-GT60 R1	Sample_50-GT60 R2	Sample_51-G161 R1	Sample 51-GT61 R2	Sample_52-GT62 R0	Sample_52.GT62 R1	Sample_52-GT62 R2	Sample_53-GT63 R0	Sample 53-6103 R1	Sample 54-GT64 R0	Sample_54-GT64 R1	Sample_54-GT64 R2	Sample_55-GT65 R0	Sample_55-GT65 R1	Sample_55-GT65 R2	Sample_56-GT66 R0				Sample 57-GT67 R2	Sample_58-GT68 R0	Sample_58-GT68 R1	Cample_58-GT68 R2	Sample_59-GT69 R0	Sample_59-6169 KI		Sample_60-GT70 R1	Sample_60-GT70 R2	Sample_61-GT71 R0	Sample_61-61/1 R1	Sample_61-61/1 R2	Sample 62-GT72 R1	Sample 62-GT72 R2	Sample_63-GT73 R0	Sample_63-GT73 R1	Sample_63-GT73 R2	Sample_64-61/4 R0	Sample_64.GT74.R2
-	20-1 0-1	ಗ 1 ೯ ವ	5	Ц Ц	1	L .	r T S S	1 1	Ц 2	11	1	년 - 윤 5	1		ц П	1		τ	1				2 1 2 1	5	Ц Ц	1	1		- 1 -	1 2	11	1	Ц г	1.		ן ו נו	5	Ц Ц		1	5 z	1 51

	Read Length (b.p.)	
LO	.40- .20- 80- 60- 40- 20-	
Sample_81-6197 R0		Sample_65-G1 / 5 H
Sample_81-GT97 R1		Sample_65-GT75 F
Sample_81-GT97 R2		Sample_65-GT75 R
Sample_82-GT98 R0		Sample_66-GT76 F
Sample_82-GT98 R1		Sample_66-GT76 F
Sample_82-GT98 R2		Sample_66-GT76 R
Sample_83-GT99 R0		Sample_67-GT77 F
Sample_83-GT99 R1		Sample_67-GT77 F
Sample_83-GT99 R2		Sample_67-GT77 R
Sample_84-GT100 R0		Sample_68-GT78 F
Sample_84-GT100 R1		Sample_68-GT78 F
Sample_84-GT100 R2		Sample_68-GT78 R
Sample_85-GT101 R0		Sample_69-GT80 F
Sample_85-GT101 R1		Sample_69-GT80 F
Sample_85-GT101 R2		Sample_69-GT80 R
Sample_86-GT102 R0		Sample_70-GT81 F
Sample_86-GT102 R1		Sample_70-GT81 F
Sample_86-GT102 R2		Sample_70-GT81 R
Sample_87-GT103 R0		Sample_71-GT82 F
Sample_87-GT103 R1		Sample_71-GT82 F
Sample_87-GT103 R2		Sample_71-GT82 R
Sample 88-GT104 R0		Sample 72-GT84 F
Sample_88-GT104 R1		Sample_72-GT84 F
Sample_88-GT104 R2		Sample_72-GT84 R
Sample_89-GT105 R0		Sample 73-GT85 F
Sample 89-GT105 R1		Sample 73-GT85 F
Sample 89-GT105 R2		Sample 73-GT85 R
Sample_90-GT106 R0		Sample 74-GT87 F
Sample_90-GT106 R1		Sample_74-GT87 F
Sample_90-GT106 R2		Sample 74-GT87 R
Sample_91-GT110 R0		Sample_75-GT88 F
Sample_91-GT110 R1		Sample_75-GT88 F
Sample_91-GT110 R2		Sample_75-GT88 R
Sample_92-GT112 R0		Sample_76-GT89 F
Sample_92-GT112 R1		Sample_76-GT89 F
Sample_92-GT112 R2		Sample_76-GT89 R
Sample_93-GT113 R0		Sample_77-GT92 F
Sample_93-GT113 R1		Sample_77-GT92 F
Sample_93-GT113 R2		Sample_77-GT92 R
Sample_94-GT114 R0		Sample_78-GT93 F
Sample_94-GT114 R1		Sample_78-GT93 F
Sample_94-GT114 R2		Sample_78-GT93 R
Sample_95-GT115 R0		Sample_79-GT95 F
Sample_95-GT115 R1		Sample_79-GT95 F
Sample_95-GT115 R2		Sample_79-GT95 R
Sample_96-Control R0		Sample_80-GT96 F
Sample_96-Control R1		Sample_80-GT96 F
Sample_96-Control R2		Sample_80-GT96 R

Red line indicates median length

Box indicates interquartile range

Whiskers indicate minimum and maximum read lengths

Further detailed statistics are available for each of the trimmed and raw data files.

CGR Informatics Clinic

The CGR run an informatics clinic for our collaborators, offering one-to-one sessions lasting an hour or two, with the aim of providing limited and basic bioinformatics assistance. Please contact Sam Haldenby (s.haldenby@liverpool.ac.uk) if you would be interested in setting up a session. We also provide quoted-for, comprehensive informatics analyses, so should you require more in-depth assistance, please visit https://www.liverpool.ac.uk/genomic-research/contact-us/enquiry-form.

Description of methods

The raw Fastq files are trimmed for the presence of Illumina adapter sequences using <u>Cutadapt</u> version 1.2.1 [<u>Reference</u>]. The option -O 3 was used, so the 3' end of any reads which match the adapter sequence for 3 bp. or more are trimmed.

The reads are further trimmed using <u>Sickle</u> version 1.200 with a minimum window quality score of 20. Reads shorter than 15 bp. after trimming were removed. If only one of a read pair passed this filter, it is included in the R0 file. The output files from Cutadapt and Sickle are available <u>here</u>.

Statistics were generated using fastq-stats from EAUtils.

Additional notes

Libraries by Claudia Wierzbicki ; Sequencing by Charlotte Nelson.

Contacts

The bioinformatics analysis for this project has been performed by R.Gregory. Please <u>e-mail</u> if you have any further queries.