**KEY RESOURCES TABLE**

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| --- | --- | --- |
| REAGENT or RESOURCE | SOURCE | IDENTIFIER |
| Biological Samples |  |  |
|  |  |  |
|  |  |  |
| Critical Commercial Assays | | |
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| Deposited Data | | |
| Human reference genome NCBI build 38, GRCh38 | Genome Reference Consortium | <https://www.ncbi.nlm.nih.gov/grc/human> |
| Human subtelomeric assemblies | Stong et al., 2014 | <https://genome.cshlp.org/content/suppl/2014/04/16/gr.166983.113.DC1/Supplemental_FileS1.txt> |
| PacBio CCS sequencing of sample HG001 | Zook et al., 2019 | <ftp://ftp.ncbi.nlm.nih.gov/giab/ftp/data/NA12878/PacBio_SequelII_CCS_11kb/HG001_GRCh38/HG001_GRCh38.haplotag.RTG.trio.bam> |
| PacBio CCS sequencing of sample HG002 | Zook et al., 2019 | <ftp://ftp.ncbi.nlm.nih.gov/giab/ftp/data/AshkenazimTrio/HG002_NA24385_son/PacBio_CCS_10kb/GRCh38_no_alt_analysis/HG002.10kb.Sequel.pbmm2.GRCh38.whatshap.haplotag.RTG.10x.trio.bam> |
| PacBio CCS sequencing of sample HG002 | Zook et al., 2019 | <ftp://ftp.ncbi.nlm.nih.gov/giab/ftp/data/AshkenazimTrio/HG002_NA24385_son/PacBio_CCS_15kb/GRCh38_no_alt_analysis/HG002.15kb.Sequel.pbmm2.GRCh38.whatshap.haplotag.RTG.10x.trio.bam> |
| PacBio CCS sequencing of sample HG005 | Zook et al., 2019 | <ftp://ftp.ncbi.nlm.nih.gov/giab/ftp/data/ChineseTrio/HG005_NA24631_son/PacBio_SequelII_CCS_11kb/HG005_GRCh38/HG005_GRCh38.haplotag.10x.bam> |
| Illumina sequencing of sample HG001 | Zook et al., 2019 | <ftp://ftp.ncbi.nlm.nih.gov/giab/ftp/data/NA12878/NIST_NA12878_HG001_HiSeq_300x/NHGRI_Illumina300X_novoalign_bams/HG001.GRCh38_full_plus_hs38d1_analysis_set_minus_alts.300x.bam> |
| Illumina sequencing of sample HG002 | Zook et al., 2019 | <ftp://ftp.ncbi.nlm.nih.gov/giab/ftp/data/AshkenazimTrio/HG002_NA24385_son/NIST_HiSeq_HG002_Homogeneity-10953946/NHGRI_Illumina300X_AJtrio_novoalign_bams/HG002.GRCh38.300x.bam> |
| Illumina sequencing of sample HG005 | Zook et al., 2019 | <ftp://ftp.ncbi.nlm.nih.gov/giab/ftp/data/ChineseTrio/HG005_NA24631_son/HG005_NA24631_son_HiSeq_300x/NHGRI_Illumina300X_Chinesetrio_novoalign_bams/HG005.GRCh38_full_plus_hs38d1_analysis_set_minus_alts.300x.bam> |
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| Oligonucleotides | | |
|  |  |  |
|  |  |  |
| Recombinant DNA | | |
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| Software and Algorithms | | |
| edgeCase | This paper | <https://github.com/LankyCyril/edgecase> |
| minimap2 | Li, 2018 | <https://lh3.github.io/minimap2/> |
| Jellyfish | Marçais and Kingsford, 2011 | <http://www.genome.umd.edu/jellyfish.html> |
| Telomerecat | Farmery et al., 2018 | <https://github.com/cancerit/telomerecat> |
| Other | | |
|  |  |  |