

| Literature  | Journal              | Date of publication | Species      | Genome | Number of cells | Number of regions | Number of cell types | Tissue               | Whether there is batch information (name of the obs, number of batches / none) | Sequencing technology                | Multi-omics (Yes / No) | The original data that can be obtained (bam, bed.gz, fragments.tsv.gz, fragments.bed.gz, sorted.bw, bw, RDS.gz, NaN) | The address of the original resource   | Cloud storage address for accessibility   |
|---|----------------------|---------------------|--------------|--------|-----------------|-------------------|----------------------|----------------------|--|--------------------------------------|------------------------|--|--|---|
| A single-cell atlas of chromatin accessibility in the human genome  | Cell                 | 2021/11/24          | Homo sapiens | hg19   | 1,323,041       | 7,500             | 111                  | 30 adult tissues     | 'Life stage', 2  | sci-ATAC-seq                         | No                     | fragments.bed.gz   | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE184462">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE184462</a> ;<br><a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE165659">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE165659</a> | <a href="https://drive.google.com/file/d/1-SMN14ytNtvxf8cUfOw7VUVqQ0D1t8x/view?usp=sharing">https://drive.google.com/file/d/1-SMN14ytNtvxf8cUfOw7VUVqQ0D1t8x/view?usp=sharing</a>   |
| Integrated Single-Cell Analysis Maps the Continuous Regulatory Landscape of Human Hematopoietic Differentiation | Cell                 | 2018/5/31           | Homo sapiens | hg19   | 2,034           | 19,820            | 13                   | Bone marrow or blood | 'Batch', 7   | scATAC-seq                           | No                     | bed.gz   | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96769">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96769</a> ;<br><a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96772">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96772</a>     | <a href="https://drive.google.com/file/d/1Oie5lbJDLTiaVKZVFPlyplxNVnElhezg/view?usp=sharing">https://drive.google.com/file/d/1Oie5lbJDLTiaVKZVFPlyplxNVnElhezg/view?usp=sharing</a> |
| cisTopic: cis-regulatory topic modeling on single-cell ATAC-seq data  | Nature Methods       | 2019/4/8            | Homo sapiens | hg19   | 598             | 24,950            | 4                    | Melano ma cell lines | 'Batch', 2   | Time series scATAC-seq (Fluidigm C1) | No                     | sorted.bw  | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE114557">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE114557</a>  | <a href="https://drive.google.com/file/d/1acR9h8w1tYr-1OzVzxfwAwjkZVRHH7tV/view?usp=sharing">https://drive.google.com/file/d/1acR9h8w1tYr-1OzVzxfwAwjkZVRHH7tV/view?usp=sharing</a> |
| Droplet-based combinatorial indexing for massive-scale single-cell chromatin accessibility                      | Nature Biotechnology | 2019/6/24           | Homo sapiens | hg19   | 136,463         | 4,191             | 15                   | Bone marrow          | 'Batch', 2   | dsciATAC-seq                         | No                     | fragments.tsv.gz   | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123581">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123581</a>  | <a href="https://drive.google.com/file/d/16_JkCIYIiiNjHsw48e1nutqcCDRIgDT/view?usp=sharing">https://drive.google.com/file/d/16_JkCIYIiiNjHsw48e1nutqcCDRIgDT/view?usp=sharing</a>   |

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|---|---------------------|-----------|--------------|------|-------|--------|---|-----------|-----|------------|-----|--------|---|---|
| Single-nucleus analysis of accessible chromatin in developing mouse forebrain reveals cell-type-specific transcriptional regulation | Nature Neuroscience | 2018/2/12 | Mus musculus | mm9  | 2,088 | 2,000  | 8 | Forebrain | NaN | snATAC-seq | No  | bw     | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE100033">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE100033</a> | <a href="https://drive.google.com/file/d/1qFtTZdjD-M-XDElyIleOY4oeRo_VpiaT/view?usp=sharing">https://drive.google.com/file/d/1qFtTZdjD-M-XDElyIleOY4oeRo_VpiaT/view?usp=sharing</a> |
| Multiplex single-cell profiling of chromatin accessibility by combinatorial cellular indexing                                       | Science             | 2015/5/7  | Homo sapiens | mm9  | 748   | 1,841  | 3 | NaN       | NaN | scATAC-seq | No  | NaN    | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE68103">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE68103</a>   | <a href="https://drive.google.com/file/d/1uLafXHugUlmjQgOD5ZA5_ZiA3XZEKANZ/view?usp=sharing">https://drive.google.com/file/d/1uLafXHugUlmjQgOD5ZA5_ZiA3XZEKANZ/view?usp=sharing</a> |
| Multiplex single-cell profiling of chromatin accessibility by combinatorial cellular indexing                                       | Science             | 2015/5/7  | Homo sapiens | mm9  | 700   | 1,235  | 3 | NaN       | NaN | scATAC-seq | No  | NaN    | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE68103">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE68103</a>   | <a href="https://drive.google.com/file/d/1JpoaUMUvxH89Zyf2RuNo1-xuqve0q2GU/view?usp=sharing">https://drive.google.com/file/d/1JpoaUMUvxH89Zyf2RuNo1-xuqve0q2GU/view?usp=sharing</a> |
| Single-cell chromatin accessibility reveals principles of regulatory variation  | Nature              | 2015/6/17 | Homo sapiens | mm9  | 1,377 | 8,713  | 6 | NaN       | NaN | scATAC-seq | No  | bed.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE65360">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE65360</a>   | <a href="https://drive.google.com/file/d/1KcYeMpp9AsAveaQu5IHMJu-8wVknB2TW/view?usp=sharing">https://drive.google.com/file/d/1KcYeMpp9AsAveaQu5IHMJu-8wVknB2TW/view?usp=sharing</a> |
| Lineage-specific and single-cell chromatin accessibility charts human hematopoiesis and leukemia evolution                          | Nature Genetics     | 2016/8/15 | Homo sapiens | hg19 | 576   | 14,258 | 6 | Blood     | NaN | scATAC-seq | Yes | NaN    | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE74310">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE74310</a>   | <a href="https://drive.google.com/file/d/1sGVaK9HgkTOiUGWwYBF1dN1FAqgrvHid/view?usp=sharing">https://drive.google.com/file/d/1sGVaK9HgkTOiUGWwYBF1dN1FAqgrvHid/view?usp=sharing</a> |

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| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 4,033 | 8,225  | 15 | Bone marrow    | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586</a> ;<br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/1ramwS7HaLyej1s-bBm3YtzL_Tj3OXfus/view?usp=sharing">https://drive.google.com/file/d/1ramwS7HaLyej1s-bBm3YtzL_Tj3OXfus/view?usp=sharing</a> |
| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 4,370 | 7,409  | 18 | Bone marrow    | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586</a> ;<br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/1vxmmBUEHuyNluKMUNB8O9mrfl-yPsBzL/view?usp=sharing">https://drive.google.com/file/d/1vxmmBUEHuyNluKMUNB8O9mrfl-yPsBzL/view?usp=sharing</a> |
| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 2,278 | 13,284 | 20 | Cerebellum     | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586</a> ;<br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/1E8MaIso3w8nQVI-g7LWNfay6RpQtZbx1/view?usp=sharing">https://drive.google.com/file/d/1E8MaIso3w8nQVI-g7LWNfay6RpQtZbx1/view?usp=sharing</a> |
| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 7,650 | 18,286 | 22 | Heart          | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586</a> ;<br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/1_gOfJ-q_pn66lBU_z1GZfWYsh72SMt6/view?usp=sharing">https://drive.google.com/file/d/1_gOfJ-q_pn66lBU_z1GZfWYsh72SMt6/view?usp=sharing</a>   |
| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 6,431 | 25,010 | 26 | Kidney         | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586</a> ;<br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/1Y9WtJK0MR1-Z0I8XQvjom1O_pUYkJJOm/view?usp=sharing">https://drive.google.com/file/d/1Y9WtJK0MR1-Z0I8XQvjom1O_pUYkJJOm/view?usp=sharing</a> |
| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 2,281 | 9,254  | 18 | LargeIntestine | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586</a> ;<br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/1kv2BD_Bpj_G_TniZDmXvmfr1-ViGMKXz/view?usp=sharing">https://drive.google.com/file/d/1kv2BD_Bpj_G_TniZDmXvmfr1-ViGMKXz/view?usp=sharing</a> |

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| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 4,805 | 10,151 | 18 | LargeIntestine   | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;</a><br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/1qBsXfGA_7dEioZsIA77SJYQSdLUy40nZ/view?usp=sharing">https://drive.google.com/file/d/1qBsXfGA_7dEioZsIA77SJYQSdLUy40nZ/view?usp=sharing</a> |
| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 6,167 | 31,360 | 17 | Liver            | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;</a><br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/17o47RSDqrE91YbjMd1iwUSjmQdc_bHBZ/view?usp=sharing">https://drive.google.com/file/d/17o47RSDqrE91YbjMd1iwUSjmQdc_bHBZ/view?usp=sharing</a> |
| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 4,874 | 12,435 | 25 | Lung             | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;</a><br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/1ZAViNVRUGTLrP3z0lNs1twWpSwKAMvGi/view?usp=sharing">https://drive.google.com/file/d/1ZAViNVRUGTLrP3z0lNs1twWpSwKAMvGi/view?usp=sharing</a> |
| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 5,959 | 42,534 | 22 | PreFrontalCortex | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;</a><br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/1DI6WfLG69BUf6SO_11NyaLM0pSekCq90/view?usp=sharing">https://drive.google.com/file/d/1DI6WfLG69BUf6SO_11NyaLM0pSekCq90/view?usp=sharing</a> |
| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 4,077 | 1,820  | 18 | SmallIntestine   | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;</a><br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/134_Gs3c49db2vBJIm6cF_M7twaFO86lI/view?usp=sharing">https://drive.google.com/file/d/134_Gs3c49db2vBJIm6cF_M7twaFO86lI/view?usp=sharing</a> |
| A single-cell atlas of in vivo mammalian chromatin accessibility | Cell | 2018/8/23 | Mus musculus | mm9 | 4,020 | 23,544 | 15 | Spleen           | NaN | sci-ATAC-seq | No | bam | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586;</a><br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a> | <a href="https://drive.google.com/file/d/15fJZCq8RAJRd-UOFLVIpInmoD3rAyiGu/view?usp=sharing">https://drive.google.com/file/d/15fJZCq8RAJRd-UOFLVIpInmoD3rAyiGu/view?usp=sharing</a> |

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| A single-cell atlas of in vivo mammalian chromatin accessibility  | Cell | 2018/8/23 | Mus musculus | mm9  | 2,723 | 8,475  | 10 | Testes      | NaN        | sci-ATAC-seq | No | bam    | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586</a> ;<br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a>                     | <a href="https://drive.google.com/file/d/1G10F9-SLR6fsa3QDgQAC7_ovZ3LvS-Fb/view?usp=sharing">https://drive.google.com/file/d/1G10F9-SLR6fsa3QDgQAC7_ovZ3LvS-Fb/view?usp=sharing</a>       |
| A single-cell atlas of in vivo mammalian chromatin accessibility  | Cell | 2018/8/23 | Mus musculus | mm9  | 7,617 | 25,504 | 14 | Thymus      | NaN        | sci-ATAC-seq | No | bam    | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586</a> ;<br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a>                     | <a href="https://drive.google.com/file/d/1PHHPdjyzqQ9noT8p_2MQXVudcwGw7Owa/view?usp=drive_link">https://drive.google.com/file/d/1PHHPdjyzqQ9noT8p_2MQXVudcwGw7Owa/view?usp=drive_link</a> |
| A single-cell atlas of in vivo mammalian chromatin accessibility  | Cell | 2018/8/23 | Mus musculus | mm9  | 5,494 | 22,627 | 21 | WholeBrain  | NaN        | sci-ATAC-seq | No | bam    | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586</a> ;<br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a>                     | <a href="https://drive.google.com/file/d/1HNPfjIXPtSQwuGRwMZWHL1DZilitaln/view?usp=drive_link">https://drive.google.com/file/d/1HNPfjIXPtSQwuGRwMZWHL1DZilitaln/view?usp=drive_link</a>   |
| A single-cell atlas of in vivo mammalian chromatin accessibility  | Cell | 2018/8/23 | Mus musculus | mm9  | 3,272 | 26,707 | 20 | WholeBrain  | NaN        | sci-ATAC-seq | No | bam    | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE111586</a> ;<br><a href="https://atlas.gs.washington.edu/mouse-atac/data/">https://atlas.gs.washington.edu/mouse-atac/data/</a>                     | <a href="https://drive.google.com/file/d/1J15bHXvTm3j27AOxgHwMEiqdZW3at6dn/view?usp=sharing">https://drive.google.com/file/d/1J15bHXvTm3j27AOxgHwMEiqdZW3at6dn/view?usp=sharing</a>       |
| Integrated Single-Cell Analysis Maps the Continuous Regulatory Landscape of Human Hematopoietic Differentiation | Cell | 2018/5/31 | Homo sapiens | hg19 | 722   | 19,473 | 3  | Bone marrow | 'Batch', 4 | scATAC-seq   | No | bed.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96769">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96769</a> ;<br><a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96772">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96772</a> | <a href="https://drive.google.com/file/d/14tBtr9pkoC_FArSdKsf8M3eAVO7vHb3/view?usp=sharing">https://drive.google.com/file/d/14tBtr9pkoC_FArSdKsf8M3eAVO7vHb3/view?usp=sharing</a>         |

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| Integrated Single-Cell Analysis Maps the Continuous Regulatory Landscape of Human Hematopoietic Differentiation         | Cell                  | 2018/5/31  | Homo sapiens | hg19 | 380    | 14,671 | 3  | Bone marrow                            | 'Batch', 2     | scATAC-seq               | No | bed.gz           | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96769">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96769</a> ;<br><a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96772">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE96772</a> | <a href="https://drive.google.com/file/d/1svSnE9zFWAai4HgxeWx7kICO8FRF61bJ/view?usp=sharing">https://drive.google.com/file/d/1svSnE9zFWAai4HgxeWx7kICO8FRF61bJ/view?usp=sharing</a>       |
| A rapid and robust method for single cell chromatin accessibility profiling   | Nature Communications | 2018/12/17 | Mus musculus | mm10 | 3,166  | 46,172 | 12 | Three tissues                          | NaN            | scATAC-seq (plate-based) | No | NaN              | <a href="https://www.ebi.ac.uk/arrayexpress/experiments/E-MTAB-6714/">https://www.ebi.ac.uk/arrayexpress/experiments/E-MTAB-6714/</a>  | <a href="https://drive.google.com/file/d/10MhqcbB7WFIYVe3pnSffQaatnkZADBrJ/view?usp=drive_link">https://drive.google.com/file/d/10MhqcbB7WFIYVe3pnSffQaatnkZADBrJ/view?usp=drive_link</a> |
| Massively parallel single-cell chromatin landscapes of human immune cell development and intratumoral T cell exhaustion | Nature Biotechnology  | 2019/8/2   | Homo sapiens | hg19 | 63,882 | 30,780 | 31 | Peripheral blood and bone marrow cells | 'Donor_id', 16 | scATAC-seq               | No | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE129785">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE129785</a>  | <a href="https://drive.google.com/file/d/1ZHnQlwHyIGGBGP2FtN7GBfKv8j_hjXd9/view?usp=sharing">https://drive.google.com/file/d/1ZHnQlwHyIGGBGP2FtN7GBfKv8j_hjXd9/view?usp=sharing</a>       |
| Massively parallel single-cell chromatin landscapes of human immune cell development and intratumoral T cell exhaustion | Nature Biotechnology  | 2019/8/2   | Homo sapiens | hg19 | 37,818 | 37,346 | 20 | Tumor microenvironment (TME)           | 'Patient', 7   | scATAC-seq               | No | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE129785">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE129785</a>  | <a href="https://drive.google.com/file/d/1IcPApEbb4tWtF6Rk-vTxs3xypGIYnbuf/view?usp=sharing">https://drive.google.com/file/d/1IcPApEbb4tWtF6Rk-vTxs3xypGIYnbuf/view?usp=sharing</a>       |

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|--|-----------------------|------------|--------------|------|---------|--------|----|---------------------------------|----------------------------|------------------------------|----|------------------|---|---|
| Online single-cell data integration through projecting heterogeneous datasets into a common cell-embedding space | Nature Communications | 2022/10/17 | Mus musculus | hg19 | 13,671  | 10,066 | 20 | Brain                           | 'Batch', 2                 | scATAC-seq                   | No | NaN              | use GSE126724 (snATAC-seq) and <a href="https://support.10xgenomics.com/single-cell-atac/datasets/1.1.0/atac_v1_adult_brain_fresh_5k?%20(10X)together">https://support.10xgenomics.com/single-cell-atac/datasets/1.1.0/atac_v1_adult_brain_fresh_5k? (10X) together</a>                                       | <a href="https://drive.google.com/file/d/1Ibn_mqxhvS5TPC94oh6wLcNorkZSUKhx/view?usp=sharing">https://drive.google.com/file/d/1Ibn_mqxhvS5TPC94oh6wLcNorkZSUKhx/view?usp=sharing</a>       |
| ArchR: An integrative and scalable software package for single-cell chromatin accessibility analysis             | Nature Genetics       | 2021/2/25  | Homo sapiens | hg19 | 27,220  | 11,613 | 12 | Admixed immortalized cell lines | NaN                        | 10x Genomics scATAC-seq (v1) | No | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE162690">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE162690</a>   | <a href="https://drive.google.com/file/d/1XmRjSOUXHwbZT9TG21UfBhysciPjfdDu/view?usp=sharing">https://drive.google.com/file/d/1XmRjSOUXHwbZT9TG21UfBhysciPjfdDu/view?usp=sharing</a>       |
| ArchR: An integrative and scalable software package for single-cell chromatin accessibility analysis             | Nature Genetics       | 2021/2/25  | Homo sapiens | hg19 | 16,047  | 10,540 | 12 | Admixed immortalized cell lines | NaN                        | 10x Genomics scATAC-seq (v1) | No | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE162690">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE162690</a>   | <a href="https://drive.google.com/file/d/1ZIZglKsvD9J2UDv7IdloH5i9s0IPC2rp/view?usp=drive_link">https://drive.google.com/file/d/1ZIZglKsvD9J2UDv7IdloH5i9s0IPC2rp/view?usp=drive_link</a> |
| ArchR: An integrative and scalable software package for single-cell chromatin accessibility analysis             | Nature Genetics       | 2021/2/25  | Homo sapiens | hg19 | 11,173  | 13,456 | 12 | Admixed immortalized cell lines | NaN                        | 10x Genomics scATAC-seq (v1) | No | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE162690">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE162690</a>   | <a href="https://drive.google.com/file/d/1gvjxe5TRqUkR15jW3cfB1eJJQbvGGbG_view?usp=sharing">https://drive.google.com/file/d/1gvjxe5TRqUkR15jW3cfB1eJJQbvGGbG_view?usp=sharing</a>         |
| A human cell atlas of fetal chromatin accessibility  | Science               | 2020/11/13 | Homo sapiens | hg19 | 720,613 | 9,746  | 78 | 15 organs                       | 'Batch', 3; 'donor_id', 20 | sci-ATAC-seq3                | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/;</a><br><a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1dygRNjBXfipE-3NgQPpUgZKIQ8PI5R9/view?usp=drive_link">https://drive.google.com/file/d/1dygRNjBXfipE-3NgQPpUgZKIQ8PI5R9/view?usp=drive_link</a>   |

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|---|---------|------------|--------------|------|--------|--------|----|------------|---------------------------|---------------|----|------------------|---|---|
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 63,958 | 12,672 | 9  | Adrenal    | 'Batch', 2; 'donor_id', 4 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1ZNWdaD0kK7nDdixvyS7iyekjTjtR-Q-/view?usp=sharing">https://drive.google.com/file/d/1ZNWdaD0kK7nDdixvyS7iyekjTjtR-Q-/view?usp=sharing</a>         |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 3,313  | 9,528  | 4  | Cerebellum | 'Batch', 1; 'donor_id', 1 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1Rn_WtnfH2qL8PYWvVrdCYqhcmmUCErpr/view?usp=drive_link">https://drive.google.com/file/d/1Rn_WtnfH2qL8PYWvVrdCYqhcmmUCErpr/view?usp=drive_link</a> |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 85,261 | 4,215  | 8  | Cerebrum   | 'Batch', 3; 'donor_id', 3 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1oZOFHjnglIGGg2hr5ELadP9kyKjMqn1N/view?usp=drive_link">https://drive.google.com/file/d/1oZOFHjnglIGGg2hr5ELadP9kyKjMqn1N/view?usp=drive_link</a> |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 9,712  | 20,592 | 8  | Eye        | 'Batch', 2; 'donor_id', 3 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1OdEyHuL4WNsuCyp8aeqv_bat9VR5XBxK/view?usp=sharing">https://drive.google.com/file/d/1OdEyHuL4WNsuCyp8aeqv_bat9VR5XBxK/view?usp=sharing</a>       |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 79,248 | 14,780 | 14 | Heart      | 'Batch', 2; 'donor_id', 5 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/18SxkE275nUFmpTQN-17aFpIfemjLdEgY/view?usp=sharing">https://drive.google.com/file/d/18SxkE275nUFmpTQN-17aFpIfemjLdEgY/view?usp=sharing</a>       |

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|---|---------|------------|--------------|------|---------|--------|----|-----------|---------------------------|---------------|----|------------------|---|---|
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 42,942  | 11,294 | 13 | Intestine | 'Batch', 2; 'donor_id', 3 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1fw81m1HKcEH91cxVuRGb9qAUaE5NZ5NC/view?usp=drive_link">https://drive.google.com/file/d/1fw81m1HKcEH91cxVuRGb9qAUaE5NZ5NC/view?usp=drive_link</a> |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 75,490  | 15,944 | 9  | Kidney    | 'Batch', 3; 'donor_id', 6 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1tLWCAtxw-IgEH18xee844iD1osquJpPa/view?usp=sharing">https://drive.google.com/file/d/1tLWCAtxw-IgEH18xee844iD1osquJpPa/view?usp=sharing</a>       |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 183,175 | 5,782  | 8  | Liver     | 'Batch', 2; 'donor_id', 7 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/12DBRy4YGYdJZ7Avc-n41FaLz4EqLe7BD/view?usp=sharing">https://drive.google.com/file/d/12DBRy4YGYdJZ7Avc-n41FaLz4EqLe7BD/view?usp=sharing</a>       |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 72,662  | 10,957 | 9  | Lung      | 'Batch', 3; 'donor_id', 6 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1sL0P7lwRqR6hncxJ6nXx9oWtfKITLNIw/view?usp=sharing">https://drive.google.com/file/d/1sL0P7lwRqR6hncxJ6nXx9oWtfKITLNIw/view?usp=sharing</a>       |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 27,181  | 14,213 | 10 | Muscle    | 'Batch', 1; 'donor_id', 2 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/17830dVye4Vu0D5ZCje0ZNgq0WngtA5Vd/view?usp=sharing">https://drive.google.com/file/d/17830dVye4Vu0D5ZCje0ZNgq0WngtA5Vd/view?usp=sharing</a>       |

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|---|---------|------------|--------------|------|--------|--------|----|----------|---------------------------|---------------|----|------------------|---|---|
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 4,994  | 14,587 | 7  | Pancreas | 'Batch', 1; 'donor_id', 1 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1rrLCC3-ABf8aBgDR69Mq8E-Ap5vOA7hh/view?usp=sharing">https://drive.google.com/file/d/1rrLCC3-ABf8aBgDR69Mq8E-Ap5vOA7hh/view?usp=sharing</a> |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 45,181 | 9,521  | 12 | Placenta | 'Batch', 2; 'donor_id', 5 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1beIHIBMAOt0P6rF60k9OeKbNQMbKQHFE/view?usp=sharing">https://drive.google.com/file/d/1beIHIBMAOt0P6rF60k9OeKbNQMbKQHFE/view?usp=sharing</a> |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 2,157  | 9,365  | 4  | Spleen   | 'Batch', 1; 'donor_id', 1 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1WcMb3UkRtYafaOJVMnH0ADDALGC79MVF/view?usp=sharing">https://drive.google.com/file/d/1WcMb3UkRtYafaOJVMnH0ADDALGC79MVF/view?usp=sharing</a> |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 3,840  | 18,122 | 7  | Stomach  | 'Batch', 1; 'donor_id', 2 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1uaUWaz_fEQRKTeqqtIA_4p2-LSJxqebR/view?usp=sharing">https://drive.google.com/file/d/1uaUWaz_fEQRKTeqqtIA_4p2-LSJxqebR/view?usp=sharing</a> |
| A human cell atlas of fetal chromatin accessibility | Science | 2020/11/13 | Homo sapiens | hg19 | 21,499 | 15,310 | 4  | Thymus   | 'Batch', 3; 'donor_id', 4 | sci-ATAC-seq3 | No | fragments.tsv.gz | <a href="https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/">https://descartes.brotmanbaty.org/bbi/human-chromatin-during-development/</a> ; <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE149683</a> | <a href="https://drive.google.com/file/d/1ni0wUg3PmAfb4XcdtcuLE08BrzPdZs93/view?usp=sharing">https://drive.google.com/file/d/1ni0wUg3PmAfb4XcdtcuLE08BrzPdZs93/view?usp=sharing</a> |

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|---|-----------------------|------------|--------------|------|--------|---------|----|-------|------------|-----------|-----|------------------|---|---|
| Chromatin Potential Identified by Shared Single-Cell Profiling of RNA and Chromatin | Cell                  | 2020/11/12 | Mus musculus | mm10 | 3,293  | 593     | 19 | Brain | NaN        | SHARE-seq | Yes | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203</a> | <a href="https://drive.google.com/file/d/17oR8do0mJBMVPs_tBx0cG6nIXPdFTIUq/view?usp=sharing">https://drive.google.com/file/d/17oR8do0mJBMVPs_tBx0cG6nIXPdFTIUq/view?usp=sharing</a>       |
| Chromatin Potential Identified by Shared Single-Cell Profiling of RNA and Chromatin | Cell                  | 2020/11/12 | Mus musculus | mm10 | 3,293  | 6,894   | 19 | Brain | NaN        | SHARE-seq | Yes | NaN              | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203</a> | <a href="https://drive.google.com/file/d/191SqUw51GntpQoi0FbghX3yWbKy5ytFi/view?usp=drive_link">https://drive.google.com/file/d/191SqUw51GntpQoi0FbghX3yWbKy5ytFi/view?usp=drive_link</a> |
| Chromatin Potential Identified by Shared Single-Cell Profiling of RNA and Chromatin | Cell                  | 2020/11/12 | Mus musculus | mm10 | 34,774 | 15,984  | 23 | Skin  | NaN        | SHARE-seq | Yes | fragments.bed.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203</a> | <a href="https://drive.google.com/file/d/1n-IBPi5wEF0MApdMCEuFBKJtZvUstdt6/view?usp=drive_link">https://drive.google.com/file/d/1n-IBPi5wEF0MApdMCEuFBKJtZvUstdt6/view?usp=drive_link</a> |
| Chromatin Potential Identified by Shared Single-Cell Profiling of RNA and Chromatin | Cell                  | 2020/11/12 | Mus musculus | mm10 | 34,774 | 3,576   | 23 | Skin  | NaN        | SHARE-seq | Yes | NaN              | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203</a> | <a href="https://drive.google.com/file/d/1n-IBPi5wEF0MApdMCEuFBKJtZvUstdt6/view?usp=sharing">https://drive.google.com/file/d/1n-IBPi5wEF0MApdMCEuFBKJtZvUstdt6/view?usp=sharing</a>       |
| Deconvolution of single-cell multi-omics layers reveals regulatory heterogeneity    | Nature Communications | 2019/1/28  | Homo sapiens | hg19 | 549    | 154,447 | 5  | NaN   | 'Batch', 4 | scCAT-seq | Yes | NaN              | <a href="https://www.nature.com/articles/s41467-018-08205-7">https://www.nature.com/articles/s41467-018-08205-7</a>                     | <a href="https://drive.google.com/file/d/1H_j6l-saNbkq79bNRj2Rskmwh16Ux6Oq/view?usp=sharing">https://drive.google.com/file/d/1H_j6l-saNbkq79bNRj2Rskmwh16Ux6Oq/view?usp=sharing</a>       |
| Deconvolution of single-cell multi-omics layers reveals regulatory heterogeneity    | Nature Communications | 2019/1/28  | Homo sapiens | hg19 | 72     | 66,664  | 2  | NaN   | NaN        | scCAT-seq | Yes | NaN              | <a href="https://www.nature.com/articles/s41467-018-08205-7">https://www.nature.com/articles/s41467-018-08205-7</a>                     | <a href="https://drive.google.com/file/d/1HwtHHS3JpyGo05F0tF6jS80o7Gal9vG-/view?usp=sharing">https://drive.google.com/file/d/1HwtHHS3JpyGo05F0tF6jS80o7Gal9vG-/view?usp=sharing</a>       |

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|--|-----------------------|------------|--------------|------|--------|--------|----|--------|------------|-----------|-----|-----|---|---|
| Deconvolution of single-cell multi-omics layers reveals regulatory heterogeneity             | Nature Communications | 2019/1/28  | Homo sapiens | hg19 | 72     | 18,902 | 2  | NaN    | NaN        | scCAT-seq | Yes | NaN | <a href="https://www.nature.com/articles/s41467-018-08205-7">https://www.nature.com/articles/s41467-018-08205-7</a>                     | <a href="https://drive.google.com/file/d/1OA4Epz2kipRTsJKEtOoSNetrSpmqOUCg/view?usp=sharing">https://drive.google.com/file/d/1OA4Epz2kipRTsJKEtOoSNetrSpmqOUCg/view?usp=sharing</a>       |
| Deconvolution of single-cell multi-omics layers reveals regulatory heterogeneity             | Nature Communications | 2019/1/28  | Homo sapiens | hg19 | 549    | 20,003 | 5  | NaN    | 'Batch', 4 | scCAT-seq | Yes | NaN | <a href="https://www.nature.com/articles/s41467-018-08205-7">https://www.nature.com/articles/s41467-018-08205-7</a>                     | <a href="https://drive.google.com/file/d/1Q17KT4_OdqpX3Cg9RGWQ4sfpmd04mpnK/view?usp=drive_link">https://drive.google.com/file/d/1Q17KT4_OdqpX3Cg9RGWQ4sfpmd04mpnK/view?usp=drive_link</a> |
| Joint profiling of chromatin accessibility and gene expression in thousands of single cells  | Science               | 2018/8/30  | Mus musculus | mm10 | 11,296 | 198    | 14 | Kidney | NaN        | sci-CAR   | Yes | NaN | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE117089">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE117089</a> | <a href="https://drive.google.com/file/d/12t_vK1Jk1d12VT0eR2rjFf4NdwBJMYSR/view?usp=sharing">https://drive.google.com/file/d/12t_vK1Jk1d12VT0eR2rjFf4NdwBJMYSR/view?usp=sharing</a>       |
| Joint profiling of chromatin accessibility and gene expression in thousands of single cells  | Science               | 2018/8/30  | Mus musculus | mm10 | 11,296 | 2,750  | 14 | Kidney | NaN        | sci-CAR   | Yes | NaN | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE117089">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE117089</a> | <a href="https://drive.google.com/file/d/1qZ1WROEYQzpsw2bPG39wbrwRGaoXsOVY/view?usp=sharing">https://drive.google.com/file/d/1qZ1WROEYQzpsw2bPG39wbrwRGaoXsOVY/view?usp=sharing</a>       |
| High-throughput sequencing of the transcriptome and chromatin accessibility in the same cell | Nature Biotechnology  | 2019/10/14 | Mus musculus | mm10 | 9,190  | 9,511  | 22 | Cortex | NaN        | SNARE-seq | Yes | NaN | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE126074">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE126074</a> | <a href="https://drive.google.com/file/d/1rKEoHV14sny_0MtsZLCNO3UVKCjBZOuE/view?usp=sharing">https://drive.google.com/file/d/1rKEoHV14sny_0MtsZLCNO3UVKCjBZOuE/view?usp=sharing</a>       |

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|--|----------------------|------------|--------------|------|--------|--------|----|--|------------|--------------|-----|------------------|---|---|
| High-throughput sequencing of the transcriptome and chromatin accessibility in the same cell | Nature Biotechnology | 2019/10/14 | Mus musculus | mm10 | 9,190  | 5,047  | 22 | Cortex                                   | NaN        | SNARE-seq    | Yes | NaN              | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE126074">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE126074</a>   | <a href="https://drive.google.com/file/d/1b4GBr_eXrDqy7a9dPLGf7SxQF6JUK6Kw/view?usp=sharing">https://drive.google.com/file/d/1b4GBr_eXrDqy7a9dPLGf7SxQF6JUK6Kw/view?usp=sharing</a> |
| Chromatin Potential Identified by Shared Single-Cell Profiling of RNA and Chromatin          | Cell                 | 2020/11/12 | Mus musculus | mm10 | 32,231 | 3,451  | 22 | Skin                                     | 'Batch', 4 | SHARE-seq    | Yes | fragments.bed.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203</a>   | <a href="https://drive.google.com/file/d/1sfYhQITCoj6yMLSbYCXkZsZUNsItPUNG/view?usp=sharing">https://drive.google.com/file/d/1sfYhQITCoj6yMLSbYCXkZsZUNsItPUNG/view?usp=sharing</a> |
| Chromatin Potential Identified by Shared Single-Cell Profiling of RNA and Chromatin          | Cell                 | 2020/11/12 | Mus musculus | mm10 | 32,231 | 15,491 | 22 | Skin                                     | 'Batch', 4 | SHARE-seq    | Yes | NaN              | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE140203</a>   | <a href="https://drive.google.com/file/d/1FSDs5tVjS2QY9l-1zhRlfY-LCkbGyTBn/view?usp=sharing">https://drive.google.com/file/d/1FSDs5tVjS2QY9l-1zhRlfY-LCkbGyTBn/view?usp=sharing</a> |
| PBMC from a Healthy Donor - Granulocytes Removed Through Cell Sorting (10k)                  | NaN                  | 2020/9/9   | Homo sapiens | hg38 | 9,631  | 29,549 | 19 | Peripheral blood mononuclear cell (PBMC) | NaN        | 10x Multiome | Yes | fragments.tsv.gz | <a href="https://www.10xgenomics.com/datasets/pbmc-from-a-healthy-donor-granulocytes-removed-through-cell-sorting-10k-1-standard-1-0-0">https://www.10xgenomics.com/datasets/pbmc-from-a-healthy-donor-granulocytes-removed-through-cell-sorting-10k-1-standard-1-0-0</a> | <a href="https://drive.google.com/file/d/1ojWmA32c3tj44JX0W0rpAaty2DWqBLTv/view?usp=sharing">https://drive.google.com/file/d/1ojWmA32c3tj44JX0W0rpAaty2DWqBLTv/view?usp=sharing</a> |
| PBMC from a Healthy Donor - Granulocytes Removed Through Cell Sorting (10k)                  | NaN                  | 2020/9/9   | Homo sapiens | hg38 | 9,631  | 8,568  | 19 | Peripheral blood mononuclear cell (PBMC) | NaN        | 10x Multiome | Yes | bam              | <a href="https://www.10xgenomics.com/datasets/pbmc-from-a-healthy-donor-granulocytes-removed-through-cell-sorting-10k-1-standard-1-0-0">https://www.10xgenomics.com/datasets/pbmc-from-a-healthy-donor-granulocytes-removed-through-cell-sorting-10k-1-standard-1-0-0</a> | <a href="https://drive.google.com/file/d/1RE5Dui2CaeO6Dast5RivyoDRiLs6pMSc/view?usp=sharing">https://drive.google.com/file/d/1RE5Dui2CaeO6Dast5RivyoDRiLs6pMSc/view?usp=sharing</a> |

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|---|-----------------------|-----------|--------------|------|--------|--------|----|----------------------------|----------------|----------------|-----|------------------|---|---|
| Fresh Cortex from Adult Mouse Brain (P50)   | NaN                   | 2019/4/16 | Mus musculus | mm9  | 2,317  | 80,097 | 10 | Brain, cortex              | NaN            | 10x ATAC       | No  | fragments.tsv.gz | <a href="https://www.10xgenomics.com/datasets/fresh-cortex-from-adult-mouse-brain-p-50-1-standard-1-1-0">https://www.10xgenomics.com/datasets/fresh-cortex-from-adult-mouse-brain-p-50-1-standard-1-1-0</a> | <a href="https://drive.google.com/file/d/1O5R6AAF_pFkUHwvCm2ERK8aa-aFtTlft/view?usp=drive_link">https://drive.google.com/file/d/1O5R6AAF_pFkUHwvCm2ERK8aa-aFtTlft/view?usp=drive_link</a> |
| Single cell transcriptional and chromatin accessibility profiling redefine cellular heterogeneity in the adult human kidney | Nature Communications | 2021/4/13 | Homo sapiens | hg38 | 24,205 | 31,225 | 13 | Kidney                     | 'Batch', 5     | snATAC-seq     | Yes | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE151302">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE151302</a>   | <a href="https://drive.google.com/file/d/1kUFSFk66qhrJLbXugtSnVthP8TP7CrnM/view?usp=sharing">https://drive.google.com/file/d/1kUFSFk66qhrJLbXugtSnVthP8TP7CrnM/view?usp=sharing</a>       |
| Single cell transcriptional and chromatin accessibility profiling redefine cellular heterogeneity in the adult human kidney | Nature Communications | 2021/4/13 | Homo sapiens | hg38 | 19,985 | 7,988  | 13 | Kidney                     | 'Batch', 5     | snRNA-seq      | Yes | NaN              | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE151302">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE151302</a>   | <a href="https://drive.google.com/file/d/11VvR6f0c9GC40WKTIZtrSeyLZyEbd6tV/view?usp=drive_link">https://drive.google.com/file/d/11VvR6f0c9GC40WKTIZtrSeyLZyEbd6tV/view?usp=drive_link</a> |
| A transcriptomic and epigenomic cell atlas of the mouse primary motor cortex  | Nature                | 2021/10/6 | Mus musculus | mm10 | 54,844 | 12,797 | 11 | Primary motor cortex (Mop) | 'Batch', 9     | snATAC-seq     | Yes | NaN              | <a href="https://assets.nemoarchive.org/dat-ch1nqb7">https://assets.nemoarchive.org/dat-ch1nqb7</a>   | <a href="https://drive.google.com/file/d/1Y7W06ii2k0AN2WLY_VvaaTE4-0fOMC4U/view?usp=sharing">https://drive.google.com/file/d/1Y7W06ii2k0AN2WLY_VvaaTE4-0fOMC4U/view?usp=sharing</a>       |
| A transcriptomic and epigenomic cell atlas of the mouse primary motor cortex  | Nature                | 2021/10/6 | Mus musculus | mm10 | 69,727 | 13,564 | 11 | Primary motor cortex (Mop) | 'Seq-batch', 3 | scRNA 10x v3 A | Yes | NaN              | <a href="https://assets.nemoarchive.org/dat-ch1nqb7">https://assets.nemoarchive.org/dat-ch1nqb7</a>   | <a href="https://drive.google.com/file/d/189d8eBF0ujlLkVBCzFJhezGPu9di3y84/view?usp=sharing">https://drive.google.com/file/d/189d8eBF0ujlLkVBCzFJhezGPu9di3y84/view?usp=sharing</a>       |

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| A human cell atlas of fetal gene expression  | Science              | 2020/11/13 | Homo sapiens | hg38 | 4,062,980 | 3,636  | 77 | 121 tissues | 'Batch', 2; 'experiment_batch', 7 | sci-RNA-seq <sup>3</sup> | Yes | NaN              | <a href="https://descartes.brotmanbaty.org/bbi/human-gene-expression-during-development/">https://descartes.brotmanbaty.org/bbi/human-gene-expression-during-development/</a> | <a href="https://drive.google.com/file/d/19YI9WtDCuV3FJ5gSkyGZzch4FNZTfkza/view?usp=sharing">https://drive.google.com/file/d/19YI9WtDCuV3FJ5gSkyGZzch4FNZTfkza/view?usp=sharing</a>       |
| Droplet-based combinatorial indexing for massive-scale single-cell chromatin accessibility | Nature Biotechnology | 2019/6/24  | Homo sapiens | hg19 | 136,463   | 4,191  | 15 | Bone marrow | 'Batch', 2                        | dscATAC-seq              | No  | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123581">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123581</a>                                       | <a href="https://drive.google.com/file/d/15xI12iF7UtlC0wjIXK9ecEstmlChvgXC/view?usp=sharing">https://drive.google.com/file/d/15xI12iF7UtlC0wjIXK9ecEstmlChvgXC/view?usp=sharing</a>       |
| Droplet-based combinatorial indexing for massive-scale single-cell chromatin accessibility | Nature Biotechnology | 2019/6/24  | Homo sapiens | hg38 | 5,310     | 18,572 | 6  | Blood       | NaN                               | dscATAC-seq              | No  | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578</a>                                       | <a href="https://drive.google.com/file/d/1AAt0A6HEY5fbsqb02_JKrTncWLZMR2oUh/view?usp=sharing">https://drive.google.com/file/d/1AAt0A6HEY5fbsqb02_JKrTncWLZMR2oUh/view?usp=sharing</a>     |
| Droplet-based combinatorial indexing for massive-scale single-cell chromatin accessibility | Nature Biotechnology | 2019/6/24  | Homo sapiens | hg38 | 4,999     | 18,774 | 6  | Blood       | NaN                               | dscATAC-seq              | No  | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578</a>                                       | <a href="https://drive.google.com/file/d/1uCNrZQaQMEC11Psk2HQ3AXQY1CE3LjP-/view?usp=drive_link">https://drive.google.com/file/d/1uCNrZQaQMEC11Psk2HQ3AXQY1CE3LjP-/view?usp=drive_link</a> |
| Droplet-based combinatorial indexing for massive-scale single-cell chromatin accessibility | Nature Biotechnology | 2019/6/24  | Homo sapiens | hg38 | 4,536     | 22,687 | 6  | Blood       | NaN                               | dscATAC-seq              | No  | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578</a>                                       | <a href="https://drive.google.com/file/d/1yqqsAn1vM4tGwDB4mDE37qKFiuJZg8m/view?usp=sharing">https://drive.google.com/file/d/1yqqsAn1vM4tGwDB4mDE37qKFiuJZg8m/view?usp=sharing</a>         |

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|--|-----------------------|-----------|--------------|------|-------|--------|---|-------|-----|-------------|----|------------------|---|---|
| Droplet-based combinatorial indexing for massive-scale single-cell chromatin accessibility | Nature Biotechnology  | 2019/6/24 | Homo sapiens | hg38 | 4,983 | 31,530 | 6 | Blood | NaN | dscATAC-seq | No | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578</a> | <a href="https://drive.google.com/file/d/1K0R-4eeNZ1AIzjc_0FDyDBLcFf-9rP7w/view?usp=sharing">https://drive.google.com/file/d/1K0R-4eeNZ1AIzjc_0FDyDBLcFf-9rP7w/view?usp=sharing</a>       |
| Droplet-based combinatorial indexing for massive-scale single-cell chromatin accessibility | Nature Biotechnology  | 2019/6/24 | Homo sapiens | hg38 | 2,436 | 29,969 | 6 | Blood | NaN | dscATAC-seq | No | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578</a> | <a href="https://drive.google.com/file/d/1znPECIWI-fMv9xqZBLL0v4IdBQQR3frX/view?usp=sharing">https://drive.google.com/file/d/1znPECIWI-fMv9xqZBLL0v4IdBQQR3frX/view?usp=sharing</a>       |
| Droplet-based combinatorial indexing for massive-scale single-cell chromatin accessibility | Nature Biotechnology  | 2019/6/24 | Homo sapiens | hg38 | 3,981 | 20,746 | 6 | Blood | NaN | dscATAC-seq | No | fragments.tsv.gz | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE123578</a> | <a href="https://drive.google.com/file/d/1bx6PabY6QQFLPvP-tf_GLMp6HR_XwMm7/view?usp=drive_link">https://drive.google.com/file/d/1bx6PabY6QQFLPvP-tf_GLMp6HR_XwMm7/view?usp=drive_link</a> |
| A comprehensive platform for analyzing longitudinal multi-omics data                       | Nature Communications | 2023/3/27 | Homo sapiens | hg38 | 1036  | 472464 | 3 | Blood | NaN | scATAC-seq  | No | RDS.gz           | <a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE190992">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE190992</a> | <a href="https://drive.google.com/file/d/1buGjs8QRfqXUAPA5Xt2tjGv7t3o_tDcq/view?usp=sharing">https://drive.google.com/file/d/1buGjs8QRfqXUAPA5Xt2tjGv7t3o_tDcq/view?usp=sharing</a>       |