The manual for

▲ ChIP-Atlas: Dataset Search

- 1. Search by keyword
- 2. Search from papers
- 3. Tips

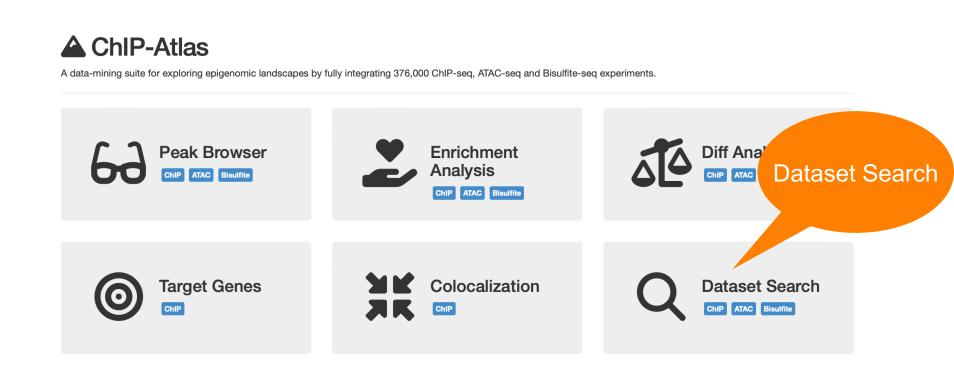
Access to ChIP-Atlas Dataset Search

Target Genes

Diff Analysis فآف

60 Peak Browser

Enrichment Analysis



K Colocalization

Publications

O Docs

Find By ID

GSM469863

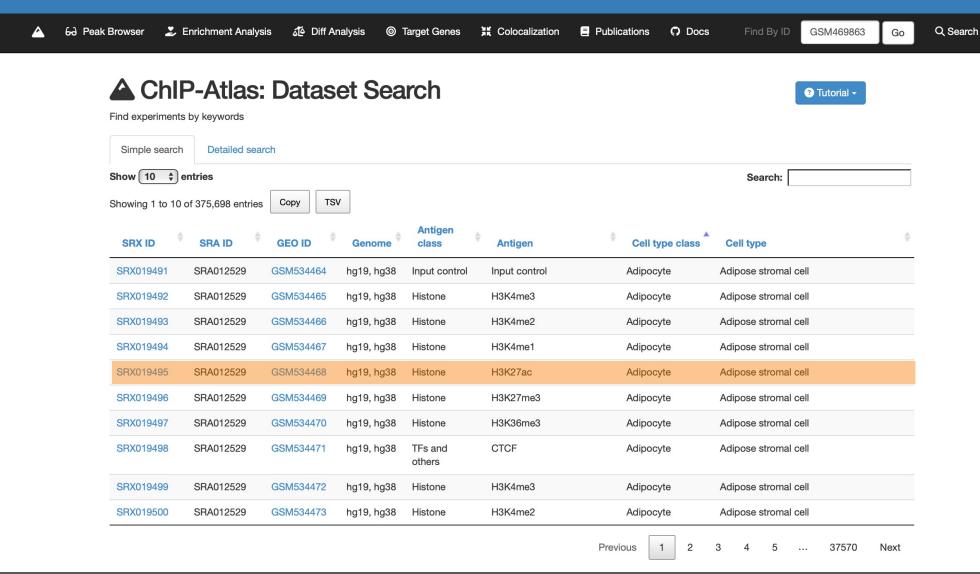
Q Search

Go

What's new

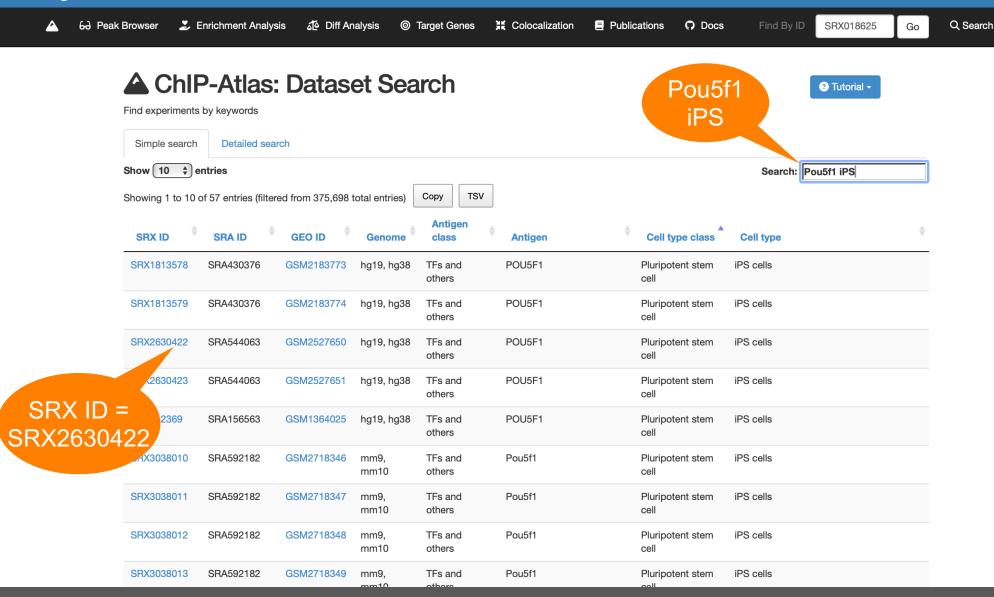
- Added Annotation tracks to Peak Browser, together with UI improvement (2023/10/25)
- Launched Diff Analysis tool enabling to detect differential peaks or differentially methylated regions (2023/10/25)
- New publication on the NAR web server issue! https://doi.org/10.1093/nar/gkac199 (2022/03/24)
- Added ATAC-Seq and Bisulfite-Seq, together with UI improvement including 'peak' icon! (2021/10/04)

Access to ChIP-Atlas Dataset Search



A table is displayed showing the sample metadata of the ChIP-seq, ATAC-seq, DNase-seq, and Bisulfite-seq experiments that are archived in ChIP-Atlas. For example, the highlighted line indicates the H3K27ac ChIP-seq data in adipose stromal cells analyzed with human genome assemblies (hg19 and hg38).

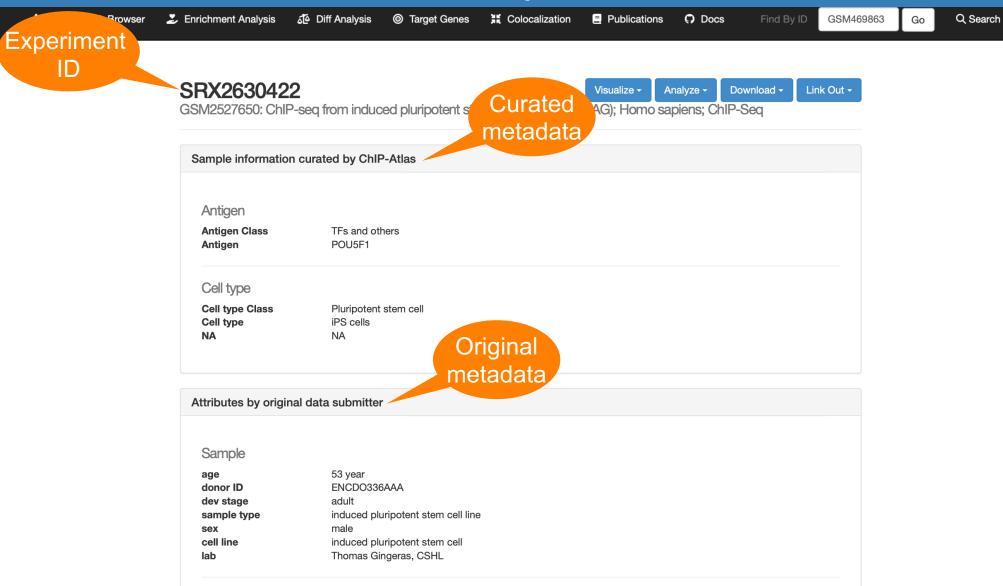
Keyword search



Enter any keyword(s) in the search box. For example, entering "Pou5f1 iPS" will filter POU5F1 ChIP-seq data in iPS cells. Click on an experiment ID (= SRX ID; e.g., SRX2630422).

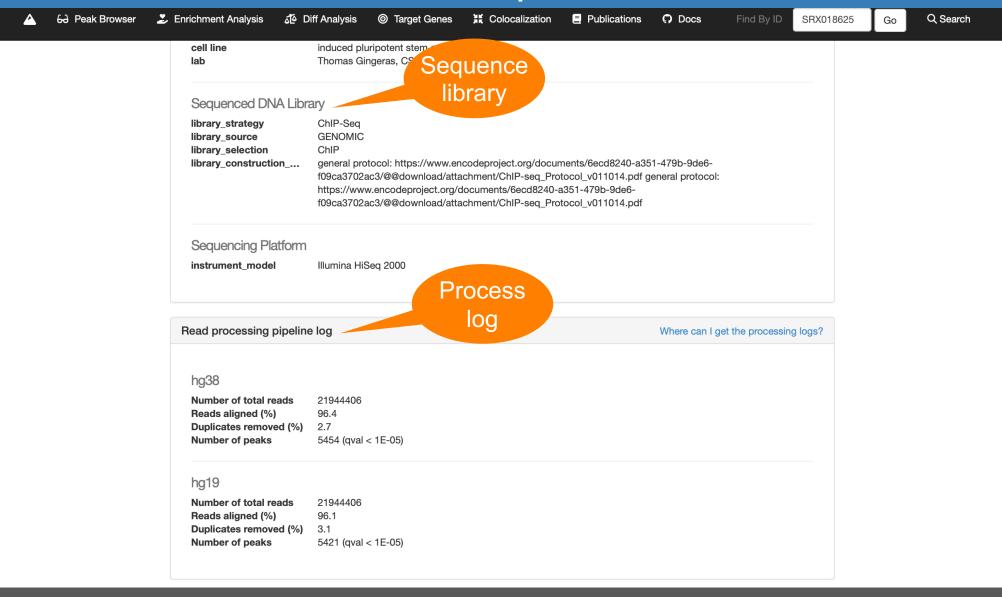
Tips: Experiment ID

Metadata of the selected experiment



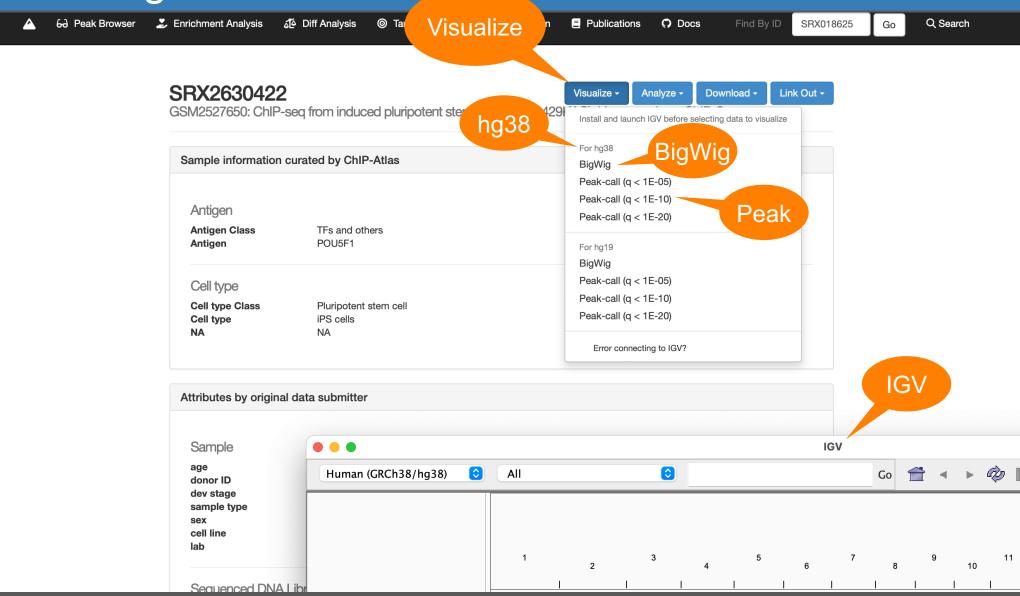
This is the webpage for **the** experiment ID SRX2630422, displaying the sample metadata curated by ChIP-Atlas staff and described by the original data submitter.

Metadata of the selected experiment



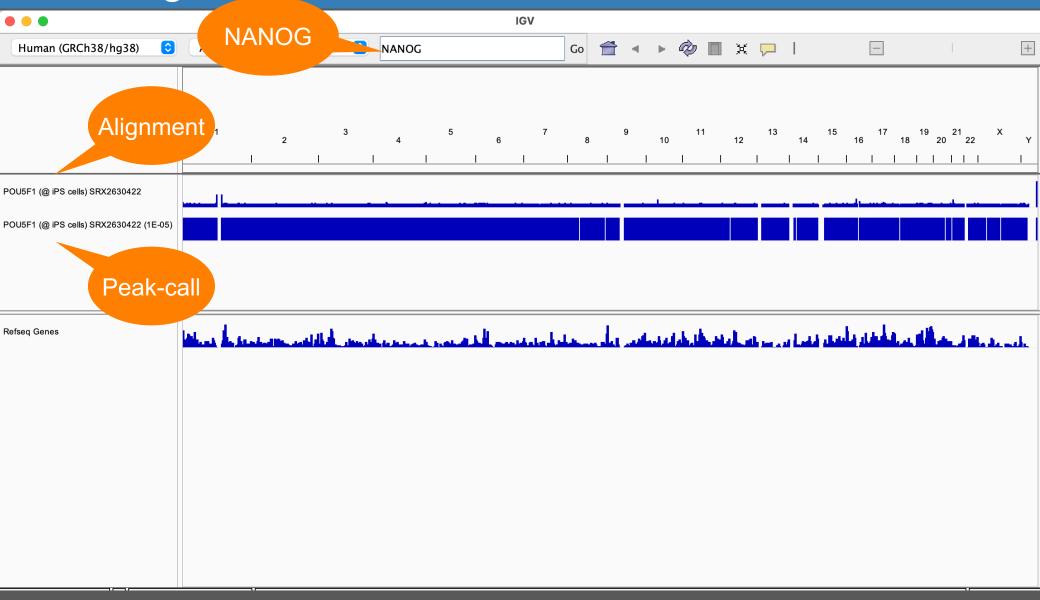
The library information and the process log are shown.

Browsing the data



To view the alignment and peak-call data on genome browser IGV, make sure that IGV has been launched before clicking on "Visualize", "BigWig", and "Peak-call".

Browsing the data

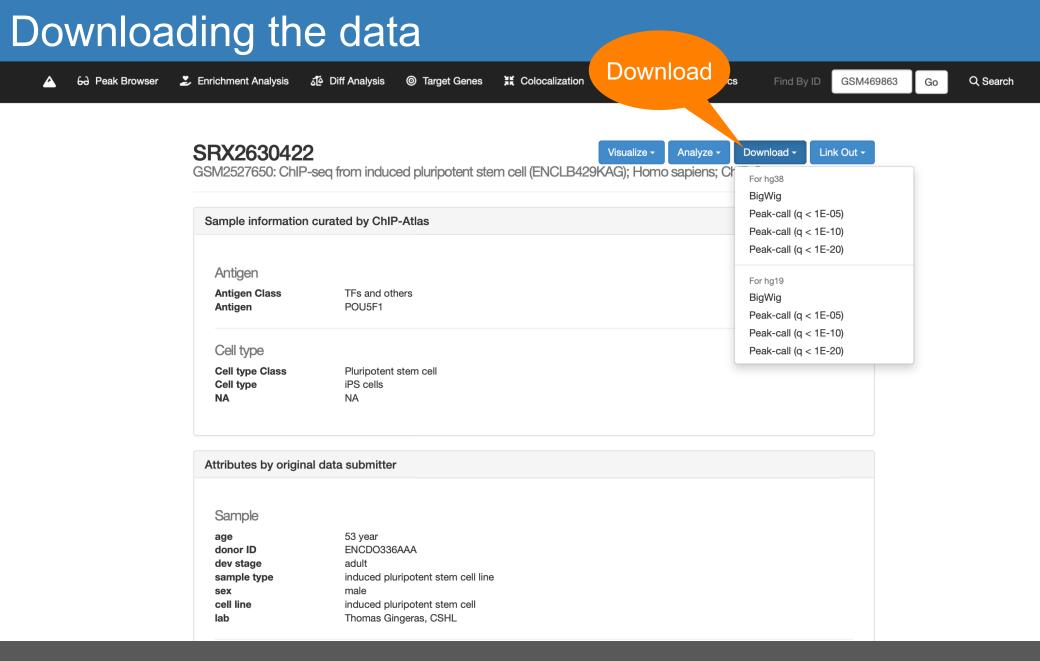


The alignment and peak-call data are loaded into IGV. Enter a gene name of interest (e.g., NANOG)

Browsing the data



POU5F1 binding is evident around the NANOG gene locus.



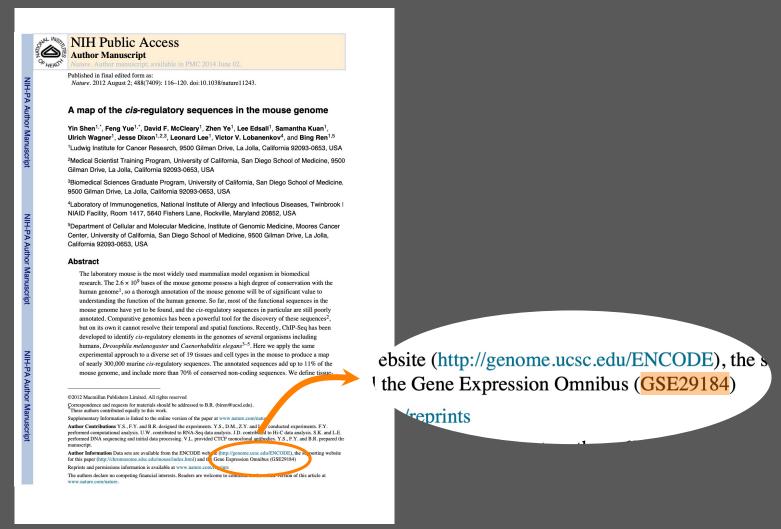
You can download the alignment data and peak-call data by clicking on the "Download" button.

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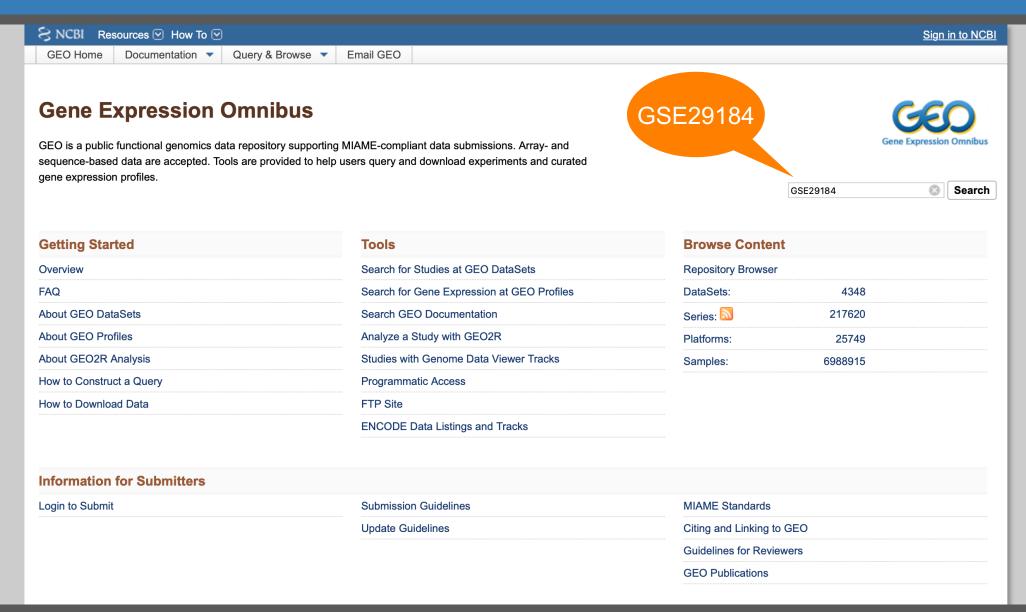
Search from papers



Shen, et al., 2012 Nature

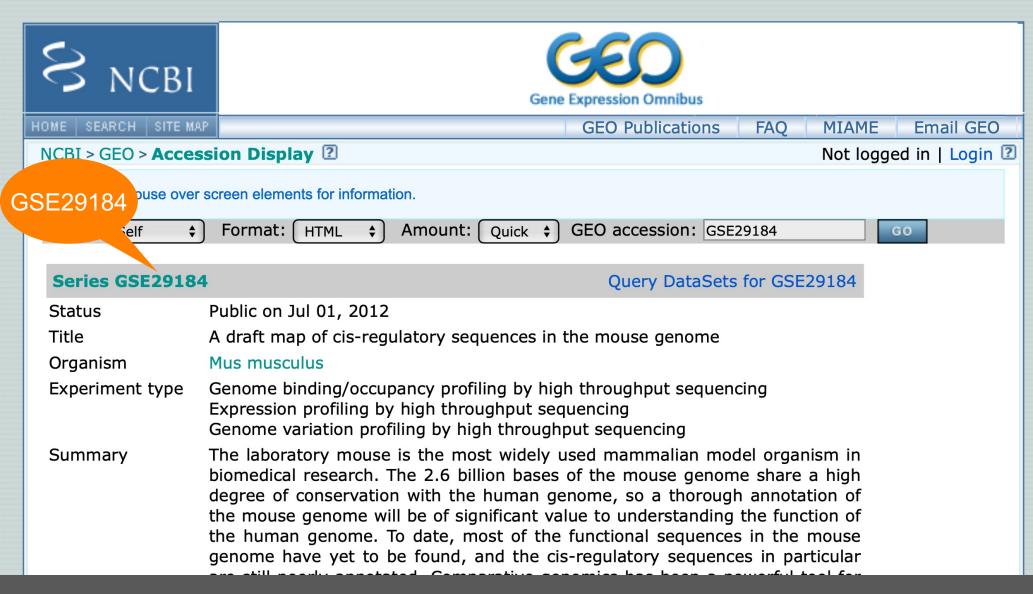
Most papers presenting high-throughput sequencing data describe a Gene Expression Omnibus (GEO) ID beginning with "GSE".

GEO Website



Go to the GEO Website (https://www.ncbi.nlm.nih.gov/geo/) and enter an ID of interest (e.g., GSE29184).

GEO Website



This is a GEO Web site of the GSE29184 series.

Looking for an experiment ID

Street address 9500 Gilman Drive

City La Jolla

State/province CA

ZIP/Postal code

92093

Country USA

Samples (3)

GPL9250 Illumina Genome Analyzer II (Mus musculus)

GPL11002 Illumina Genome Analyzer IIx (Mus musculus)

GPL13112 Illumina HiSeq 2000 (Mus musculus)

GSM722631 RenLab-CTCF-cortex

GSM722632 RenLab-H3K4me1-cortex

GSM722633 RenLab-H3K4me3-cortex

Click uperSeries is composed of the following SubSeries:

use29218 A draft map of cis-regulatory sequences in the mouse genome [ChIP-Seq]

GSE29278 A draft map of cis-regulatory sequences in the mouse genome [RNA-Seq]

GSE34587 A draft map of cis-regulatory sequences in the mouse genome [HiC]

Relations

BioProject PRJNA139991

See on Genome Data Viewer

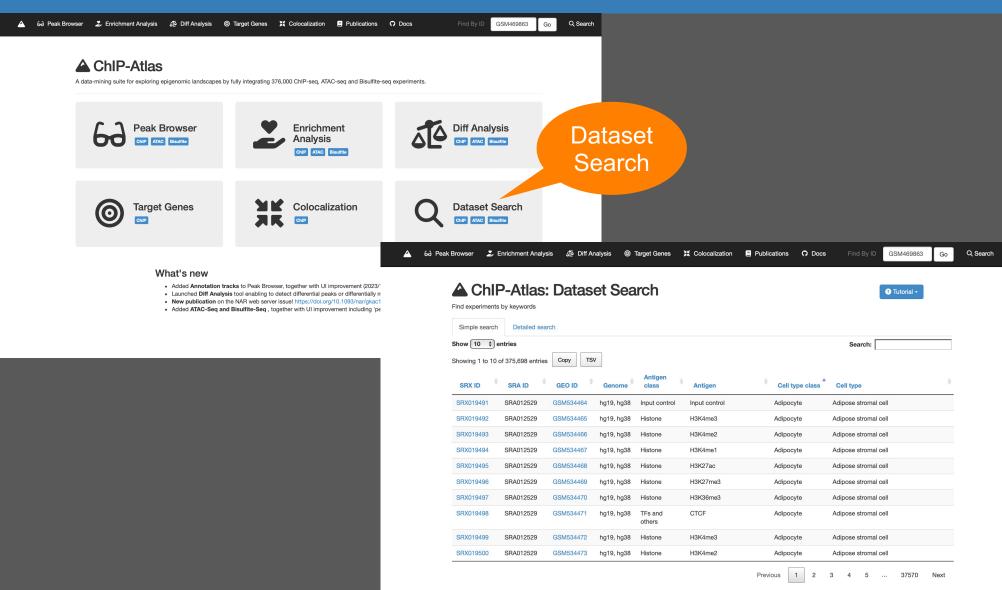
Scroll down to see the list of samples of the GSE29184 series. Click on "More" to see all samples.

Looking for an experiment ID

```
Street address
                 9500 Gilman Drive
City
                 La Jolla
State/province
                 CA
ZIP/Postal code
                 92093
                 USA
Country
Platforms (3)
                 GPL9250
                          Illumina Genome Analyzer II (Mus musculus)
                 PL11002 Illumina Genome Analyzer IIx (Mus musculus)
                 SPL13112 Illumina HiSeq 2000 (Mus musculus)
                 GSM722631 RenLab-CTCF-cortex
Samples (143)
∃ Less...
                 GSM722632 RenLab-H3K4me1-cortex
                 GSM722633 RenLab-H3K4me3-cortex
                 GSM722634 RenLab-Pol2-cortex
                 GSM722635 RenLab-Input-cortex
                 GSM722636 RenLab-CTCF-bone-marrow
                 GSM722637 RenLab-H3K4me1-bone-marrow
                 GSM722638 RenLab-H3K4me3-bone-marrow
                 GSM722639 RenLab-Pol2-bone-marrow
                 GSM722640 RenLab-Input-bone-marrow
                 GSM722663 Renlab-CTCF-cerebellum
```

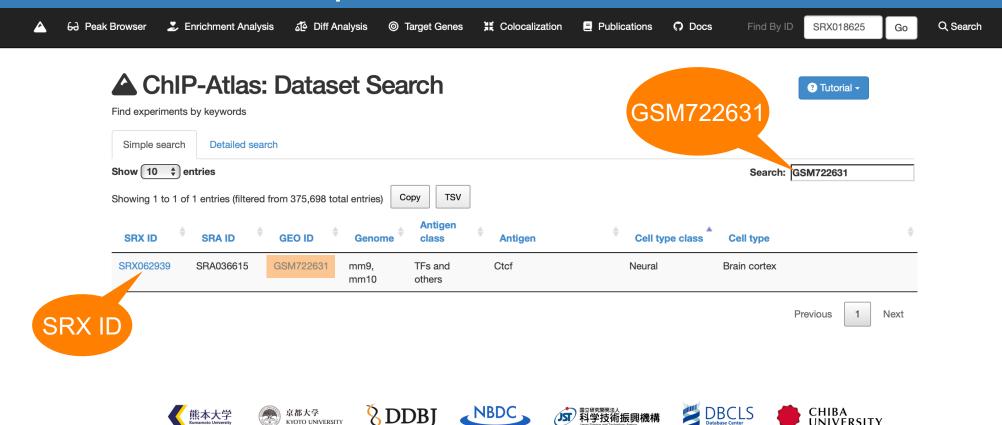
The sample names are displayed with experiment IDs beginning with "GSM", which is used to browse the data with ChIP-Atlas. For example, GSM722631 is the ID of a CTCF ChIP-seq experiment in the brain

Access to ChIP-Atlas Dataset Search



Open the webpage of ChIP-Atlas Dataset Search.

Search with an experiment ID



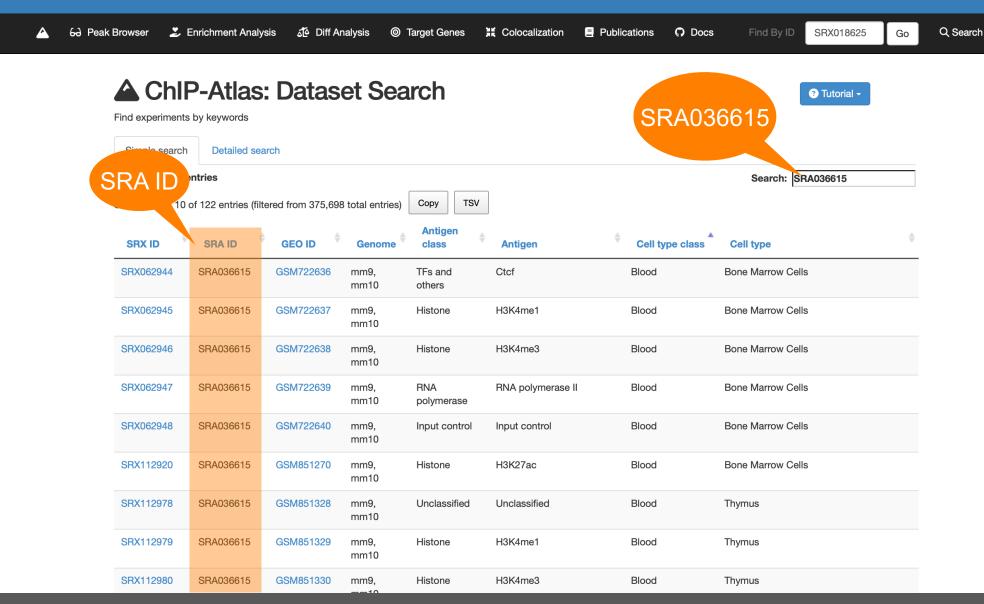
THIS WORK IS SUPPORTED BY NIG SUPERCOMPUTER SYSTEM AND JST NBDC JPMJND2202.

ALL DATA AND ANALYSIS TOOLS PROVIDED BY CHIP-ATLAS ARE LICENSED UNDER CC-BY 4.0. ATTRIBUTION SHOULD BE MADE TO OUR PUBLICATION WHEN USING THESE RESOURCES.

NEED HELP? CREATE AN ISSUE ON GITHUB OR CONTACT US

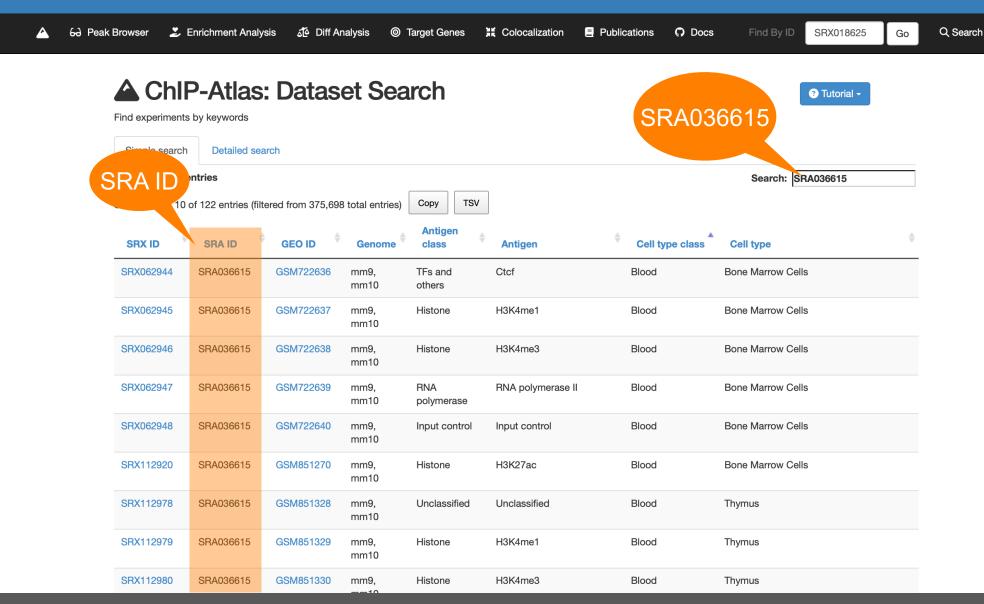
Enter an experiment ID of interest in the search box (e.g., GSM722631), and click on the SRX ID (SRX062939) to view the data on IGV as shown <u>above</u>.

Search with a series ID



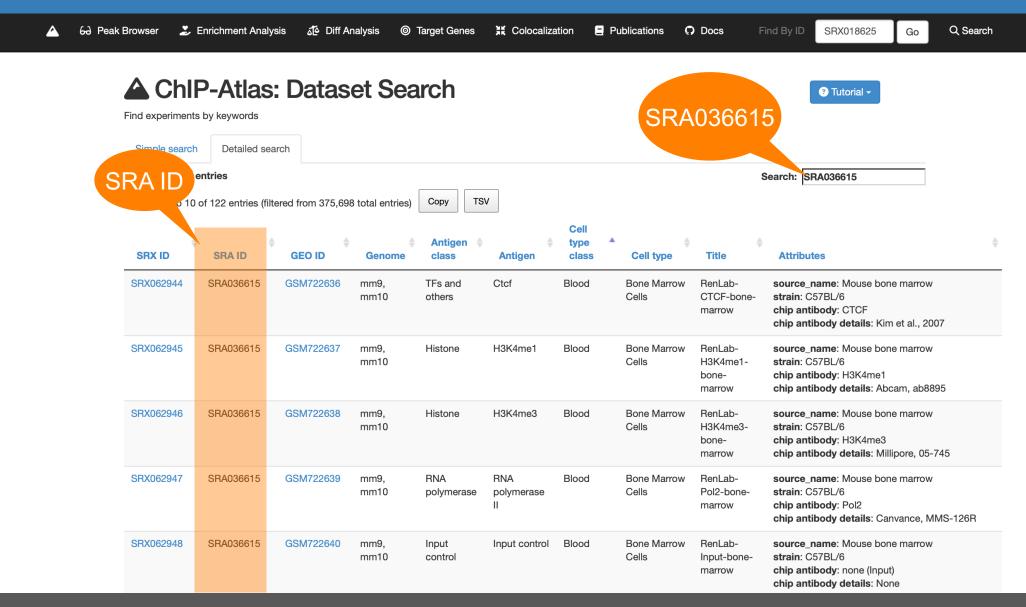
Searching with an SRA ID (e.g., SRA036615) will filter the data in the same series or project.

Search with a series ID



Searching with an SRA ID (e.g., SRA036615) will filter the data in the same series or project.

Search with a series ID



Searching with an SRA ID (e.g., SRA036615) will filter the data in the same series or project.

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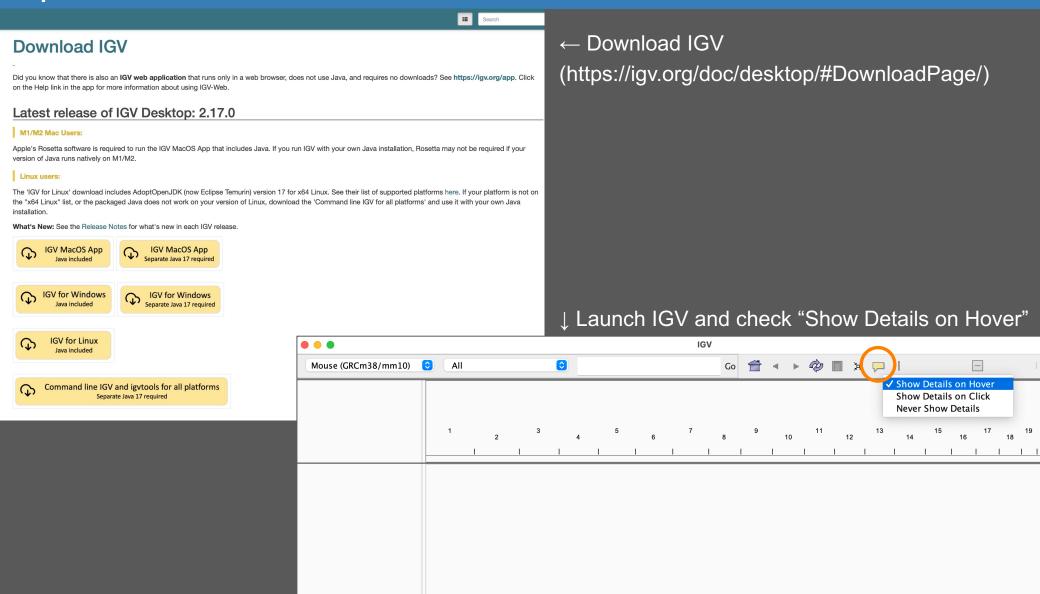
- 1. Search by keyword
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Tips: Series ID and Experiment ID

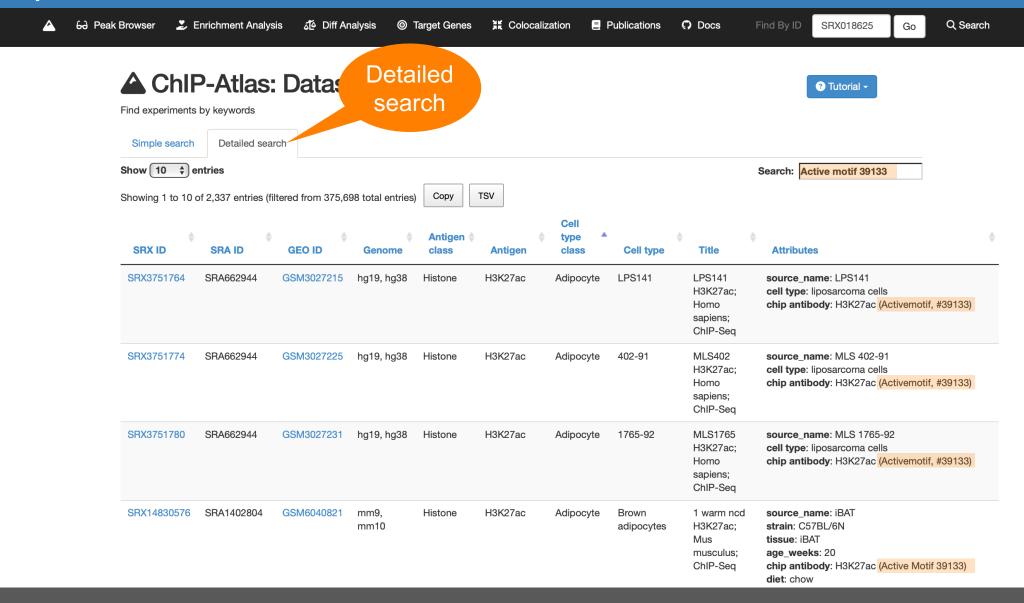
	NCBI GEO	NCBI SRA	EBI ERA	DDBJ DRA
Series ID	GSE29184	= SRA036615	ERA18567000	DRA000484
Experiment ID	GSM851325 GSM851326 GSM851327 GSM851328 GSM851329 GSM851330 GSM851331 GSM851332 GSM851333	= SRX112975 = SRX112976 = SRX112977 = SRX112978 = SRX112979 = SRX112980 = SRX112981 = SRX112982 = SRX112983	ERX9976498 ERX9976500 ERX9976501 ERX9976502	DRX001135 DRX001136 DRX001137 DRX001138 DRX001139 DRX001140 DRX001141

ChIP-Atlas covers ChIP-seq, ATAC-seq, DNase-seq, and Bisulfite-seq data from the NCBI GEO, NCBI SRA, EBI ERA, and DDBJ DRA databases. NCBI GEO and SRA have the same series and experiments; however, the IDs are different. EBI ERA and DDBJ DRA data are not shared with NCBI GEO.

Tips: Installation of IGV



Tips: Detailed search



The "Detailed search" mode allows to search from the original sample metadata described by the data submitter, such as the catalog number of the antibody used.