

Query building and Programmatic access on the ENCODE Portal

Experiment search

Showing 25 of 19481 results

[Report](#) [Experiment matrix](#) [View All](#) [Download](#) [Visualize](#)

(1)

Assay type 

Assay title 

 Search

TF ChIP-seq	4396
Histone ChIP-seq	3466
Control ChIP-seq	2567
DNase-seq	1233
scRNA-seq	1188
polyA plus RNA-seq	843
total RNA-seq	709
shRNA RNA-seq	638
RNA microarray	291

Status 

 released	18039
 archived	1102
 revoked	340

Perturbation 

not perturbed	17483
perturbed	1998

Target category 

Target of assay 

 Search

H3K4me3	628
H3K27ac	531
H3K4me1	521
H3K36me3	506
H3K9me3	490
H3K27me3	466
CTCF	373
H3K9ac	191
POLR2A	152

Organism 

Homo sapiens	13160
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Hi-C of SK-N-DZ

Homo sapiens SK-N-DZ treated with dimethyl sulfoxide for 72 hours

Lab: Job Dekker, UMass

Project: ENCODE

Treatment: dimethyl sulfoxide (CHEBI:28262) for 72 hours

Experiment 

ENCSR204CGS

 released

Control Mint-ChIP-seq of H9

Homo sapiens H9 originated from H9

Lab: Bradley Bernstein, Broad

Project: ENCODE

Experiment 

ENCSR931GAK

 released



Control Mint-ChIP-seq of H9

Homo sapiens H9

Lab: Bradley Bernstein, Broad

Project: ENCODE

Experiment 

ENCSR365EAV

 released



Control ChIP-seq of endothelial cell of umbilical vein

Homo sapiens endothelial cell of umbilical vein male newborn

Lab: Yijun Ruan, JAX

Project: ENCODE

Experiment 

ENCSR049NDZ

 released

Mint-ChIP-seq of H9

Homo sapiens H9 originated from H9

Target: H3K27ac

Lab: Bradley Bernstein, Broad

Project: ENCODE

Experiment 

ENCSR372FFA

 released



Mint-ChIP-seq of H9

Homo sapiens H9

Target: H3K36me3

Lab: Bradley Bernstein, Broad

Project: ENCODE

Experiment 

ENCSR341WEF

 released



Mint-ChIP-seq of H9

Homo sapiens H9

Target: H3K9me3

Lab: Bradley Bernstein, Broad

Project: ENCODE

Experiment 

ENCSR134OWL

 released



Mint-ChIP-seq of H9

Homo sapiens H9 originated from H9

Experiment 

ENCSR756IGI

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Homo sapiens H9

Target: H3K36me3

Lab: Bradley Bernstein, Broad

Project: ENCODE

Experiment 

ENCSR341WEF

 released

 2

Mint-ChIP-seq of H9

Homo sapiens H9

Target: H3K9me3

Lab: Bradley Bernstein, Broad

Project: ENCODE

Experiment 

ENCSR134OWL

 released

 2

Mint-ChIP-seq of H9

Homo sapiens H9 originated from H9

Experiment 

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Experiment

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Target: H3K36me3

Lab: Bradley Bernstein, Broad

Project: ENCODE

Experiment

ENCSR341WEF

released

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Mint-ChIP-seq of H9

Homo sapiens H9

Target: H3K9me3

Lab: Bradley Bernstein, Broad

Project: ENCODE

Experiment

ENCSR134OWL

released

2

Mint-ChIP-seq of H9

Homo sapiens H9 originated from H9

Experiment

ENCSR756IGI

Experiment search

Clear Filters 

Assay type 

Assay title 

Selected filters:  total RNA-seq

 Search

TF ChIP-seq	4396
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Control ChIP-seq	2567
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RNA microarray	291

Status 

 released	704
 revoked	5

Perturbation 

not perturbed	461
perturbed	248

Target category 

Target of assay 

 Search

C08G9.2	6
Y22DTAL16	6
blmp-1	6
ceh-14	6
ceh-18	6
ceh-2	6
ceh-24	6
ceh-30	6
ceh-31	6

Organism 

Showing 25 of 709 results

 Report  Experiment matrix  View All  Download  Visualize

 (1)

Add all items to cart 

total RNA-seq of whole organism

Caenorhabditis elegans strain VC2010 (C. elegans wild isolate) whole organism 900 minutes post synchronization using egg bleaching

Synchronization timepoint: egg bleaching + 900 minutes

Lab: Robert Waterston, UW

Project: modERN

Organism Development Series: [ENCSR968SQN](#)

Experiment 

ENCSR084JZN

 released



total RNA-seq of whole organism

Caenorhabditis elegans strain VC2010 (C. elegans wild isolate) whole organism 870 minutes post synchronization using egg bleaching

Synchronization timepoint: egg bleaching + 870 minutes

Lab: Robert Waterston, UW

Project: modERN

Organism Development Series: [ENCSR968SQN](#)

Experiment 

ENCSR350HVB

 released



total RNA-seq of whole organism

Caenorhabditis elegans strain VC2010 (C. elegans wild isolate) whole organism 840 minutes post synchronization using egg bleaching

Synchronization timepoint: egg bleaching + 840 minutes

Lab: Robert Waterston, UW

Project: modERN

Organism Development Series: [ENCSR968SQN](#)

Experiment 

ENCSR848YKL

 released



total RNA-seq of whole organism

Caenorhabditis elegans strain VC2010 (C. elegans wild isolate) whole organism 810 minutes post synchronization using egg bleaching

Synchronization timepoint: egg bleaching + 810 minutes

Lab: Robert Waterston, UW

Project: modERN

Organism Development Series: [ENCSR968SQN](#)

Experiment 

ENCSR591XXI

 released



total RNA-seq of whole organism

Caenorhabditis elegans strain VC2010 (C. elegans wild isolate) whole organism 780 minutes post synchronization using egg bleaching

Synchronization timepoint: egg bleaching + 780 minutes

Lab: Robert Waterston, UW

Project: modERN

Organism Development Series: [ENCSR968SQN](#)

Experiment 

ENCSR913HJV

 released



total RNA-seq of whole organism

Caenorhabditis elegans strain VC2010 (C. elegans wild isolate) whole organism 750 minutes post synchronization using egg bleaching

Synchronization timepoint: egg bleaching + 750 minutes

Lab: Robert Waterston, UW

Project: modERN

Organism Development Series: [ENCSR968SQN](#)

Experiment 

ENCSR965DQQ

 released



Experiment search

Clear Filters

Assay type

Assay title

Selected filters: total RNA-seq

Search

TF ChIP-seq	4396
Histone ChIP-seq	3466
Control ChIP-seq	2567
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released	704
revoked	5

Perturbation

not perturbed	461
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Target category

Target of assay

Search

C08G9.2	6
Y22D7AL.16	6
blmp-1	6
ceh-14	6
ceh-18	6
ceh-2	6
ceh-24	6
ceh-30	6
ceh-31	6

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All metadata tracked on the ENCODE portal

replicates.library.biosample.genetic_modifications

dbxrefs

Facets

s3_uri

files.read_count

quality_metrics

internal_tags

replicates.library.biosample.donor

replicates.antibody.lot_reviews.status

Assay title	
Q Search	
TF ChIP-seq	4396
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ceh-30	6
ceh-31	6

Perturbation	
not perturbed 461	
perturbed 248	

Query building accesses the full breadth of metadata beyond the facets

Query building example

`https://www.encodeproject.org/search/?`



Base query

Query parameters

`https://www.encodeproject.org/search/?`

Type property

?

Base query

Query parameters



Parameter format:
property=value

<https://www.encodeproject.org/search/?>

Base query

Query parameters

Parameter format:
property=value

<https://www.encodeproject.org/search/?type=Experiment>



Base query

Query parameters

Parameter format:
property=value

[https://www.encodeproject.org/search/?type=Experiment &](https://www.encodeproject.org/search/?type=Experiment&)

Base query

Query parameters

assay_title=Histone ChIP-seq

Query parameters

Embedded objects



Parameter format:
property=value

[https://www.encodeproject.org/search/?type=Experiment &](https://www.encodeproject.org/search/?type=Experiment&)

Base query

Query parameters

assay_title=Histone ChIP-seq&target.label=H3K4me3

Query parameters

Additional questions?

Contact the ENCODE DCC help desk:

encode-help@lists.stanford.edu

Parameter format:
property=value

[https://www.encodeproject.org/search/?type=Experiment &](https://www.encodeproject.org/search/?type=Experiment&assay_title=Histone+ChIP-seq&target.label=H3K4me3)

Base query

Query parameters

assay_title=Histone ChIP-seq&target.label=H3K4me3

Query parameters



Different properties → Logical **AND**:

```
assay_title=Histone ChIP-seq&target.label=H3K4me3
```

Same property, multiple times → Logical **OR**:

```
assay_title=Histone ChIP-seq&assay_title=DNase-seq
```

Negation syntax

`target.label=H3K4me3`



`target.label!=H3K4me3`

(Experiments which are NOT targeting H3K4me3)

Wildcard syntax

`target.label=H3K4me3`



`target.label=*`

(Experiments which are targeting ANY target)

Combining negation and wildcard syntax

`target.label=H3K4me3`



`target.label!=*`

(Experiments which are NOT targeting ANY target)

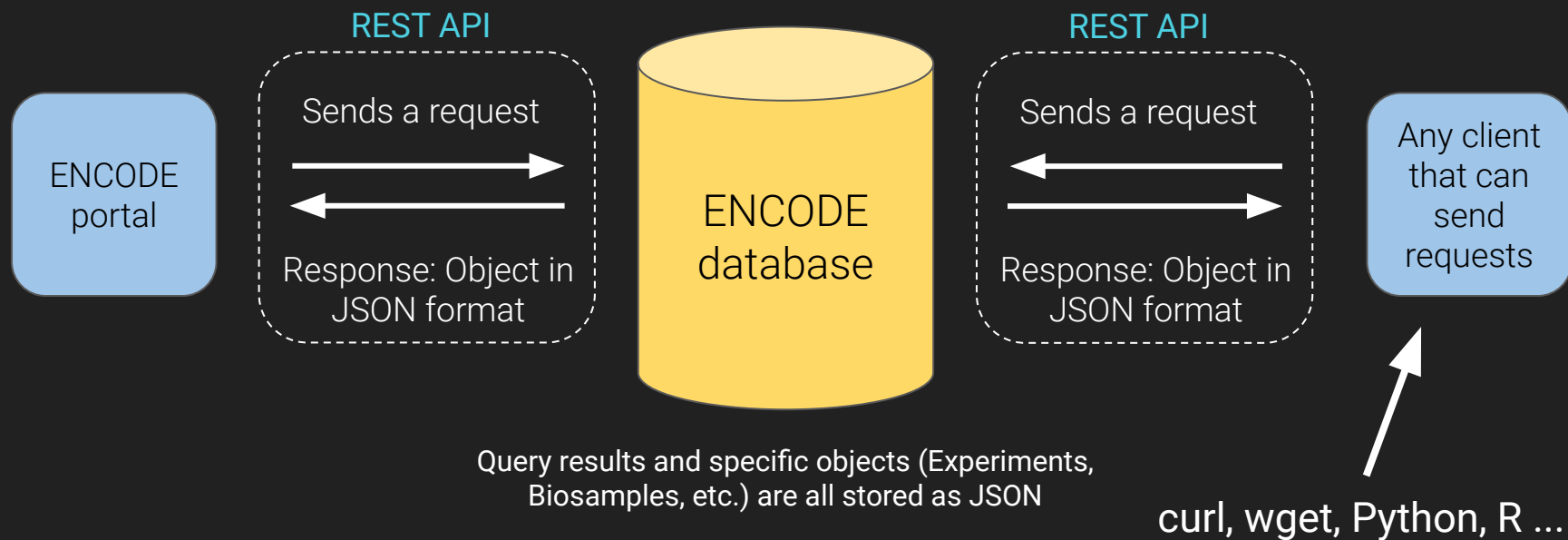
Completed query example

[https://www.encodeproject.org/search/?type=Experiment&assay_title=Histone ChIP-seq&target.label!=H3K4me3](https://www.encodeproject.org/search/?type=Experiment&assay_title=Histone+ChIP-seq&target.label!=H3K4me3)

(Experiments which are Histone ChIP-seq assay not targeting H3K4me3)

Using REST API for programmatic access

Interacting with the ENCODE database



REST API example

Goal: Retrieve the following query in JSON format.

`https://www.encodeproject.org/search/?type=Experiment&assay_title=Histone ChIP-seq&target.label=H3K4me3`

Python example:

Import required libraries

```
> import requests, json
```

```
> headers = {'accept': 'application/json'}
```

Request the query using the
get() method, or an equivalent

```
> response =  
requests.get('https://www.encodeproject.org/search/?type=Experiment&assay_title  
=Histone ChIP-seq&target.label=H3K4me3', headers=headers)
```

```
> search_results = response.json()
```

Parse the output

```
> print(json.dumps(search_results, indent=4))
```

REST API example

Python script:

```
> import requests, json

> headers = {'accept':
'application/json'}

> response =
requests.get('https://www.encodeproject.o
rg/search/?type=Experiment&assay_title=Hi
stone+ChIP-seq&target.label=H3K4me3', head
ers=headers)

> search_results = response.json()

> print(json.dumps(search_results,
indent=4))
```



Output from script:

```
>>> import requests, json
>>> headers = {'accept': 'application/json'}
>>> response = requests.get('https://www.encodeproject.org/search/?type=Experiment&assay_title=Histone
ChIP-seq&target.label=H3K4me3', headers=headers)
>>> search_results = response.json()
>>> print(json.dumps(search_results, indent=4))
{
  "@context": "/terms/",
  "@graph": [
    {
      "@id": "/experiments/ENCSR579SNM/",
      "@type": [
        "Experiment",
        "Dataset",
        "Item"
      ],
      "accession": "ENCSR579SNM",
      "assay_term_name": "ChIP-seq",
      "assay_title": "Histone ChIP-seq",
      "audit": {
        "INTERNAL_ACTION": [
          {
            "path": "/experiments/ENCSR579SNM/",
            "level_name": "INTERNAL_ACTION",
            "level": 30,
            "name": "audit_experiment",
            "detail": "Experiment {ENCSR579SNM|/experiments/ENCSR579SNM/} is released, but
is not submitted to GEO.",
            "category": "experiment not submitted to GEO"
          },
          {
            "path": "/experiments/ENCSR579SNM/",
            "level_name": "INTERNAL_ACTION",
            "level": 30,
            "name": "audit_item_status",
            "detail": "Released experiment {ENCSR579SNM|/experiments/ENCSR579SNM/} has in p
rogress subobject analysis {ENCAN816XIC|/analyses/ENCAN816XIC/}",
            "category": "mismatched status"
          }
        ]
      }
    }
  ],
  "@type": "Experiment"
}
```