

Data collection

GEO, Zenodo, Figshare

Keywords search

Obtain studies using perturb-seq platform

Integrate data from scPerturb and sc-pert

scrapy

HSad format

- ✓46 Studies
- ✓122 Datasets
- ✓3 Modalities
- ✓2 Organisms
- ✓31 Cell types
- ✓2 Perturbation types
- ✓24484 Perturbations
- ✓5M Cells

Dataset module

Features of experimental design

Title:

Modality:

Perturbation Description:

Features of perturbation name and perturbation effect

[Perturbation Query](#) [PathWay2Data Query](#)

Perturbation module

* Perturbation:

Search

2-Methoxyestradiol

A-366

ABT-737

ACTL6A

PerturBase

The results of Dataset and Perturbation module

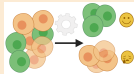
i) Quality control

The percentage of mitochondria, total counts, number of genes etc.



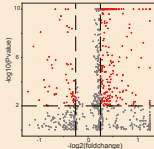
ii) Data denoising

Perturbed cells



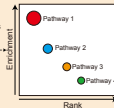
Non-Perturbed cells

iii) Differential gene expression analysis



iv) Functional analysis of perturbation effects

GO, KEGG and MSigDB databases



v) Perturbation relationships analysis

