

A Single query

hg38

hg38

hg19

telCat9

nomLeu3

sacCer3

micOch1

capHir1

oviAri1

Default

Genomic Coordinate

Genomic Coordinate

Ensembl Transcript ID

dbSNP ID

Genomic Region

4 search patterns

hg38

hg19

Genomic Coordinate

Gene Name

Ensembl Transcript ID

dbSNP ID

Genomic Region

Ensembl Gene ID

RefSeq ID

HGVSc

HGVSp

9 search patterns

For human (hg38 and hg19 reference genomes)

B Keyword query

* Keyword

breast cancer/T cell native

Retrieve

Reset

"Breast Cancer"

Asthma

capecitabine

butorphanol

"T cell, CD4, naive [activated]"

hsa-miR-4683

Examples:

developmentalDisorder

"Undiagnosed developmental disorders"

C Batch query

* Search Type

Genomic Coordinate

Gene Name

Ensembl Transcript ID

dbSNP ID

Genome Region

Ensembl Gene ID

Refseq Transcript ID

HGVSc

HGVSp

* Input

1_24401358_T/A

1_24401361_G/A

1_24401357_G/A

1_24401355_C/T

Genome

hg38

Retrieve

Reset

Supplemental Figure S9. Diverse search patterns in SynMall. The search interface offers multiple ways to explore mutations. (A) Single Query enables quick identification, supporting multiple reference genomes and search patterns. (B) Keyword Query supports natural language queries for intuitive exploration. (C) Batch Query allows efficient bulk searches, handling up to 1,000 lines at a time.