

Document:

File:

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MySQL QUERIES

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Search queries below refer to arguments db\_input, db\_query and db\_output in the  
database API function:

```
def db_request(db_input, db_query, db_output)
```

Example outputs are shown.

KEY:

===

NA = combination not allowed

string = db\_query entered as a search string

## STRING SEARCH QUERIES

-----

### ACCESSION NUMBER

```
(1,'string',1)
SELECT acc_num FROM gb_main WHERE acc_num LIKE '%string%';
db_result = [['AF485254','AF67554','AF27420']]
```

```
(2,'string',1)
SELECT acc_num FROM gb_main WHERE chrom_loc LIKE '%string%';
db_result = [['AF485254','U49845','Z27420']]
```

```
(3,'string',1)
SELECT acc_num FROM gb_main WHERE gene_id LIKE '%string%';
db_result = [['AF485254','U49845','Z27420']]
```

```
(4,'string',1)
SELECT acc_num FROM gb_main WHERE prot_name LIKE '%string%';
db_result = [['AF485254','U49845','Z27420']]
```

### CHROMOSOMAL LOCATION

```
(1,'string',2)
SELECT chrom_loc, acc_num FROM gb_main WHERE acc_num = 'string';
db_result = [['18q24.3'],
             ['U55184']]
```

```
(2,'string',2)
SELECT chrom_loc, acc_num FROM gb_main WHERE chrom_loc LIKE '%string%';
db_result = [['18q24.3','18q24','18q24.6'],
             ['AF485254','U49845','Z27420']]
```

```
(3,'string',2)

SELECT gene_id, chrom_loc, acc_num FROM gb_main WHERE gene_id LIKE '%string%';

db_result = [['NPC1','NPC1R','pseudoNPC1a'],
              ['18q24.3','18q24','18q24.6'],
              ['AF485254','U49845','Z27420']]
```

```
(4,'string',2)

SELECT prot_name, chrom_loc, acc_num FROM gb_main WHERE prot_name LIKE '%string%';

db_result = [['desmoglein 1','desmoglein 4','myelin'],
              ['18q24.3','18q24','18q24.6'],
              ['AF485254','U49845','Z27420']]
```

#### GENE IDENTITY

```
(1,'string',3)

SELECT acc_num, gene_id, FROM gb_main WHERE acc_num = 'string';

db_result = [['AF485254'],
              ['NPC1']]
```

```
(2,'string',3)

SELECT chrom_loc, gene_id, acc_num FROM gb_main WHERE chrom_loc LIKE '%string%';

db_result = [['18q24.3','18q24','18q24.6'],
              ['NPC1','NPC1R','pseudoNPC1a'],
              ['AF485254','U49845','Z27420']]
```

```
(3,'string',3)

SELECT gene_id, acc_num FROM gb_main WHERE gene_id LIKE '%string%';

db_result = [['NPC1','NPC1R','pseudoNPC1a'],
              ['AF485254','U49845','Z27420']]
```

```
(4,'string',3)

SELECT prot_name, gene_id, acc_num FROM gb_main WHERE prot_name LIKE '%string%';

db_result = [['desmoglein 1','desmoglein 4','myelin'],
              ['NPC1','NPC1R','pseudoNPC1a'],
              ['AF485254','U49845','Z27420']]
```

## PROTEIN PRODUCT

(1,'string',4)

```
SELECT acc_num, prot_name FROM gb_main WHERE acc_num = 'string';
```

```
db_result = [['Z27420'],  
             ['myelin']]
```

(2,'string',4)

```
SELECT chrom_loc, prot_name, acc_no FROM gb_main WHERE chrom_loc LIKE '%string%';
```

```
db_result = [['18q24.3','18q24','18q24.6'],  
             ['desmoglein 1','desmoglein 4','myelin'],  
             ['AF485254','U49845','Z27420']]
```

(3,'string',4)

```
SELECT gene_id, prot_name, acc_num FROM gb_main WHERE gene_id LIKE '%string%';
```

```
db_result = [['NPC1','NPC1R','pseudoNPC1a'],  
             ['desmoglein 1','desmoglein 4','myelin'],  
             ['AF485254','U49845','Z27420']]
```

(4,'string',4)

```
SELECT prot_name, acc_num FROM gb_main WHERE prot_name LIKE '%string%';
```

```
db_result = [['desmoglein 1','desmoglein 4','myelin'],  
             ['AF485254','U49845','Z27420']]
```

## LOCUS DNA SEQUENCE

(1,'string',5)

```
SELECT locus_seq, acc_num FROM gb_seq WHERE acc_num = 'string';
```

```
db_result = [['gtaactac'],  
             ['AF485254']]
```

(2,'string',5)

```
SELECT locus_seq,gb_main.acc_num FROM gb_main  
INNER JOIN gb_seq ON gb_main.acc_num = gb_seq.acc_num  
WHERE chrom_loc LIKE '%string%';  
db_result = [['gtaactac','gccagtttt','agtatgtc'],  
             ['AF485254','U49845','Z27420']]
```

```
(3,'string',5)

SELECT locus_seq,gb_main.acc_num FROM gb_main

INNER JOIN gb_seq ON gb_main.acc_num = gb_seq.acc_num

WHERE gene_id LIKE '%string%';

db_result = [['gtaactac','gccagtttt','agtatgtc'],
              ['AF485254','U49845','Z27420']]
```

```
(4,'string',5)

SELECT locus_seq,gb_main.acc_num FROM gb_main

INNER JOIN gb_seq ON gb_main.acc_num = gb_seq.acc_num

WHERE prot_name LIKE '%string%';

db_result = [['gtaactac','gccagtttt','agtatgtc'],\
              ['AF485254','U49845','Z27420']]
```

#### CDS MAP

```
(1,'string',6)

SELECT gb_main.acc_num,cds_map,start_cod,gene_span,gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num
WHERE gb_main.acc_num = 'string';

db_result = [['AF485254'],
              ['179..5187,6619..7050'],\
              ['start=3'],\
              ['24..8876'],\
              ['AF485254']]
```

```
(2,'string',6)

SELECT chrom_loc,cds_map,start_cod,gene_span,gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num
WHERE chrom_loc LIKE '%string%';

db_result = [['18q24.3','18q24','18q24.6'],
              ['179..5187,6619..7050','64..676,24..8876','NF'],
              ['start=3','start=1','start=2'],/
              ['24..8876','64..676','24..8876'],
              ['AF485254','U49845','Z27420']]
```

```
(3,'string',6)
```

```
SELECT gene_id,cds_map,start_cod,gene_span,gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num
WHERE gene_id LIKE '%string%';
```

```
db_result = [['NPC1','NPC1R','pseudoNPC1a'],
              ['179..5187,6619..7050','64..676,24..8876','NF'],
              ['start=3','start=1','start=2'],\
              ['24..8876','64..676','24..8876'],
              ['AF485254','U49845','Z27420']]
```

```
(4,'string',6)
```

```
SELECT prot_name,cds_map,start_cod,gene_span,gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num
WHERE prot_name LIKE '%string%';
```

```
db_result = [['desmoglein 1','desmoglein 4', 'myelin'],
              ['179..5187,6619..7050','64..676,24..8876','NF'],
              ['start=3','start=1','start=2'],/
              ['24..8876','64..676','24..8876'],
              ['AF485254','U49845','Z27420']]
```

```
LIST, SHORT
```

```
(1,'string',7)
```

```
SELECT acc_num, chrom_loc, gene_id, prot_name
FROM gb_main WHERE acc_num = 'string';
```

```
db_result = [['D00596'],
              ['18q24'],
              ['TPMT'],
              ['desmoglein type 1']]
```

```
(2,'string',7)
```

```
SELECT acc_num, chrom_loc, gene_id, prot_name
FROM gb_main WHERE chrom_loc LIKE '%string%';
```

```
db_result = [['AF485254','U49845','Z27420'],
              ['18q24.3','18q24','18q24.6'],
              ['NPC1','NPC1R','pseudoNPC1a'],
              ['desmoglein 1','desmoglein 4','myelin']]
```

```
(3,'string',7)

SELECT acc_num, chrom_loc, gene_id, prot_name
FROM gb_main WHERE gene_id LIKE '%string%';

db_result = [['AF485254','U49845','Z27420'],
              ['18q24.3','18q24','18q24.6'],
              ['NPC1','NPC1R','pseudoNPC1a'],
              ['desmoglein 1','desmoglein 4','myelin']]
```

```
(4,'string',7)

SELECT acc_num, chrom_loc, gene_id, prot_name
FROM gb_main WHERE prot_name LIKE '%string%';

db_result = [['AF485254','U49845','Z27420'],
              ['18q24.3','18q24','18q24.6'],
              ['NPC1','NPC1R','pseudoNPC1a'],
              ['desmoglein 1','desmoglein 4','myelin']]
```

LIST, LONG

```
(1,'string',8)

SELECT m.acc_num, chrom_loc, gene_id, prot_name, locus_seq, cds_map, start_cod, gene_span
FROM gb_main m, gb_seq s, gb_cds_map c
WHERE s.acc_num = m.acc_num AND c.acc_num = m.acc_num AND m.acc_num = 'string';
```

```
(2,'string',8)

SELECT m.acc_num, chrom_loc, gene_id, prot_name, locus_seq, cds_map, start_cod, gene_span
FROM gb_main m, gb_seq s, gb_cds_map c
WHERE s.acc_num = m.acc_num AND c.acc_num = m.acc_num AND chrom_loc LIKE '%string%';
```

```
(3,'string',8)

SELECT m.acc_num, chrom_loc, gene_id, prot_name, locus_seq, cds_map, start_cod, gene_span
FROM gb_main m, gb_seq s, gb_cds_map c
WHERE s.acc_num = m.acc_num AND c.acc_num = m.acc_num AND gene_id LIKE '%string%';
```

```
(4,'string',8)

SELECT m.acc_num, chrom_loc, gene_id, prot_name, locus_seq, cds_map, start_cod, gene_span
FROM gb_main m, gb_seq s, gb_cds_map c
WHERE s.acc_num = m.acc_num AND c.acc_num = m.acc_num AND prot_name LIKE '%string%';
```

## BROWSE SEARCH QUERIES

-----

### ACCESSION NUMBER

(1,'B',1)

```
SELECT acc_num FROM gb_main;
```

```
db_result = [['AF485254','AF67554', ..., 'Z27420']]
```

(2,'B',1)

```
SELECT chrom_loc, acc_num FROM gb_main;
```

```
db_result = [['18q24.3','18q24', ..., '18q24.6'],  
             ['AF485254','U49845', ..., 'Z27420']]
```

(3,'B',1)

```
SELECT gene_id, acc_num FROM gb_main;
```

```
db_result = [['NPC1','NPC1R', ..., 'pseudoNPC1a'],  
             ['AF485254','U49845', ..., 'Z27420']]
```

(4,'B',1)

```
SELECT prot_name, acc_num FROM gb_main;
```

```
db_result = [['desmoglein type 1','desmoglein 4', ..., 'myelin'],  
             ['AF485254','U49845', ..., 'Z27420']]
```

(5,'B',1) NA

(6,'B',1) NA

(7,'B',1) NA

(8,'B',1) NA

### CHROMOSOMAL LOCATION

(1,'B',2)

```
SELECT acc_num, chrom_loc FROM gb_main;
```

```
db_result = [['AF485254','U49845', ..., 'Z27420'],  
             ['18q24.3','18q24', ..., '18q24.6']]
```



```
(2,'B',2)

SELECT chrom_loc, acc_num FROM gb_main;

db_result = [['18q24.3','18q24', ..., '18q24.6'],
              ['AF485254','U49845', ..., 'Z27420']]
```

```
(3,'B',2)

SELECT gene_id, chrom_loc, acc_num FROM gb_main;

db_result = [['NPC1','NPC1R',..., 'pseudoNPC1a'],
              ['18q24.3','18q24', ..., '18q24.6'],
              ['AF485254','U49845', ..., 'Z27420']]
```

```
(4,'B',2)

SELECT prot_name, chrom_loc, acc_num FROM gb_main;

db_result = [['desmoglein 1','desmoglein 4',..., 'myelin'],
              ['18q24.3','18q24', ..., '18q24.6'],
              ['AF485254','U49845', ..., 'Z27420']]
```

```
(5,'B',2) NA
(6,'B',2) NA
(7,'B',2) NA
(8,'B',2) NA
```

#### GENE IDENTITY

```
(1,'B',3)

SELECT acc_num, gene_id, FROM gb_main;

db_result = [['AF485254','U49845', ..., 'Z27420'],
              ['NPC1','NPC1R',..., 'pseudoNPC1a']]
```

```
(2,'B',3)

SELECT chrom_loc, gene_id, acc_num FROM gb_main;

db_result = [['18q24.3','18q24', ..., '18q24.6'],
              ['NPC1','NPC1R',..., 'pseudoNPC1a'],
              ['AF485254','U49845', ..., 'Z27420']]
```

```
(3,'B',3)

SELECT gene_id, acc_num FROM gb_main;

db_result = [['NPC1','NPC1R',...,'pseudoNPC1a'],
              ['AF485254','U49845', ..., 'Z27420']]
```

```
(4,'B',3)

SELECT prot_name, gene_id, acc_num FROM gb_main;

db_result = [['desmoglein 1','desmoglein 4',..., 'myelin'],
              ['NPC1','NPC1R',...,'pseudoNPC1a'],
              ['AF485254','U49845', ..., 'Z27420']]
```

```
(5,'B',3) NA
(6,'B',3) NA
(7,'B',3) NA
(8,'B',3) NA
```

#### PROTEIN PRODUCT

```
(1,'B',4)

SELECT acc_num, prot_name FROM gb_main;

db_result = [['desmoglein 1','desmoglein 4',..., 'myelin'],
              ['AF485254','U49845', ..., 'Z27420']]
```

```
(2,'B',4)

SELECT chrom_loc, prot_name, acc_no FROM gb_main;

db_result = [['18q24.3','18q24', ..., '18q24.6'],
              ['desmoglein 1','desmoglein 4',..., 'myelin'],
              ['AF485254','U49845', ..., 'Z27420']]
```

```
(3,'B',4)

SELECT gene_id, prot_name, acc_num FROM gb_main;

db_result = [['NPC1','NPC1R',...,'pseudoNPC1a'],
              ['desmoglein 1','desmoglein 4',..., 'myelin'],
              ['AF485254','U49845', ..., 'Z27420']]
```

(4,'B',4)

```
SELECT prot_name, acc_num FROM gb_main;
```

```
db_result = [['desmoglein 1','desmoglein 4',..., 'myelin'],  
             ['AF485254','U49845', ..., 'Z27420']]
```

(5,'B',4) NA

(6,'B',4) NA

(7,'B',4) NA

(8,'B',4) NA

LOCUS DNA SEQUENCE

(1,'B',5)

```
SELECT gb_main.acc_num,locus_seq,gb_main.acc_num
```

```
FROM gb_main INNER JOIN gb_seq ON gb_main.acc_num = gb_seq.acc_num;
```

```
db_result = [['AF485254','U49845',..., 'Z27420'],  
             ['gtaactac','gccagtttt',..., 'agtatgtc'],  
             ['AF485254','U49845',..., 'Z27420']]
```

(2,'B',5)

```
SELECT chrom_loc,locus_seq,gb_main.acc_num
```

```
FROM gb_main INNER JOIN gb_seq ON gb_main.acc_num = gb_seq.acc_num;
```

```
db_result = [['18q24.3','18q24', ..., '18q24.6'],  
             ['gtaactac','gccagtttt',..., 'agtatgtc'],  
             ['AF485254','U49845', ..., 'Z27420']]
```

(3,'B',5)

```
SELECT gene_id,locus_seq,gb_main.acc_num
```

```
FROM gb_main INNER JOIN gb_seq ON gb_main.acc_num = gb_seq.acc_num;
```

```
db_result = [['NPC1','NPC1R',..., 'pseudoNPC1a'],  
             ['gtaactac','gccagtttt',..., 'agtatgtc'],  
             ['AF485254','U49845', ..., 'Z27420']]
```

(4,'B',5)

```
SELECT prot_name,locus_seq,gb_main.acc_num
```

```
FROM gb_main INNER JOIN gb_seq ON gb_main.acc_num = gb_seq.acc_num;
```

```
db_result = [['desmoglein 1','desmoglein 4',..., 'myelin'],  
             ['gtaactac','gccagtttt',..., 'agtatgtc'],
```

```
['AF485254','U49845', ..., 'Z27420']]
```

```
(5, 'B', 5) NA
```

```
(6, 'B', 5) NA
```

```
(7, 'B', 5) NA
```

```
(8, 'B', 5) NA
```

```
CDS MAP
```

```
(1, 'B', 6)
```

```
SELECT gb_main.acc_num, cds_map, start_cod, gene_span, gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num;
db_result = [['AF485254', 'U49845', ..., 'Z27420'],
              ['179..5187, 6619..7050', '64..676, 24..8876', ..., 'NF'],
              ['start=3', 'start=1', ..., 'start=2'], /
              ['24..8876', '64..676', ..., '24..8876'],
              ['AF485254', 'U49845', ..., 'Z27420']]
```

```
(2, 'B', 6)
```

```
SELECT chrom_loc, cds_map, start_cod, gene_span, gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num;
db_result = [['18q24.3', '18q24', ..., '18q24.6'],
              ['179..5187, 6619..7050', '64..676, 24..8876', ..., 'NF'],
              ['start=3', 'start=1', ..., 'start=2'], /
              ['24..8876', '64..676', ..., '24..8876'],
              ['AF485254', 'U49845', ..., 'Z27420']]
```

```
(3, 'B', 6)
```

```
SELECT gene_id, cds_map, start_cod, gene_span, gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num;
db_result = [['NPC1', 'NPC1R', ..., 'pseudoNPC1a'],
              ['179..5187, 6619..7050', '64..676, 24..8876', ..., 'NF'],
              ['start=3', 'start=1', ..., 'start=2'], /
              ['24..8876', '64..676', ..., '24..8876'],
              ['AF485254', 'U49845', ..., 'Z27420']]
```

(4,'B',6)

```
SELECT prot_name,cds_map,start_cod,gene_span,gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num;

db_result = [['desmoglein 1','desmoglein 4',..., 'myelin'],
              ['179..5187,6619..7050','64..676,24..8876',..., 'NF'],
              ['start=3','start=1',..., 'start=2'],/
              ['24..8876','64..676',..., '24..8876'],
              ['AF485254','U49845',..., 'Z27420']]
```

(5,'B',6) NA

(6,'B',6) NA

(7,'B',6) NA

(8,'B',6) NA

LIST, SHORT

(1,'B',7) NA

(2,'B',7) NA

(3,'B',7) NA

(4,'B',7) NA

(5,'B',7) NA

(6,'B',7) NA

(7,'B',7) SELECT acc\_num,chrom\_loc,gene\_id,prot\_name FROM gb\_main;

```
db_result = [['AF485254','U49845',..., 'Z27420'],
              ['18q24.3','18q24', ..., '18q24.6'],
              ['NPC1','NPC1R',..., 'pseudoNPC1a'],\
              ['desmoglein 1','desmoglein 4',..., 'myelin']]
```

(8,'B',7) NA

LIST, LONG

(1,'B',8) NA

(2,'B',8) NA

(3,'B',8) NA

(4,'B',8) NA

(5,'B',8) NA

(6,'B',8) NA

(7,'B',8) NA

(8,'B',8) NA