Guide for former BioMart users

Starting list of genes

Just as you did in BioMart, you first define your list of genes of

Search for...

expand all | collapse all

Filter the searches belo

▼ Genes
  ▼ Annotation, cura
     🔍 Gene ID(s)
     🔍 User Comments
  ▶ Function prediction
  ▶ Gene models
  ▶ Genomic Location
  ▶ Immunology
  ▶ Orthology and synteny
  ▶ Pathways and interactions
  ▶ Protein features and properties
  ▶ Protein targeting and localization
  ▶ Sequence analysis
  ▶ Structure analysis
  ▼ Taxonomy
     🔍 Organism

to start with a custom list of genes of interest

to start with the entire genome as your gene list

Transform into related records

Transform 19,804 Genes into...

- Orthologs
- Metabolic Pathways
- Compounds

Use **Genomic Colocation** to combine with other features

Convert to a list of orthologs

VectorBase Release 50 beta 17 Dec 2020
Bioinformatics Resource for Invertebrate Vectors of Human Pathogens

Site search, e.g. AGAP004730 or *reductase or "binding protein"

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Guest

My Search Strategies

Opened (1)   All (3)   Public (6)   Help

Unnamed Search Strategy ✏

Organism 19,804 Gene... | + Add a step

Step 1

19,804 Genes (11,134 ortholog groups) [Revise this search]

Gene Results | Genome View | **Analyze Results**

Genes: 19,804 ☐ Show Only One Transcript Per Gene

◀ 1 2 3 ... 1,724 ▶   Rows per page: 20 ▾

[Download] [Add to Basket] [⚙ Add Columns]

Gene ID	Transcript ID	Organism ❌	Product Description
AAEL004671	AAEL004671-RA	Aedes aegypti LVP_AGWG	(s)-2-hydroxy-acid oxidase
AAEL004677	AAEL004677-RA	Aedes aegypti LVP_AGWG	(s)-2-hydroxy-acid oxidase
AAEL004676	AAEL004676-RA	Aedes aegypti LVP_AGWG	(s)-2-hydroxy-acid oxidase
AAEL005035	AAEL005035-RA	Aedes aegypti LVP_AGWG	1,4-dihydroxy-2-naphthoate octaprenyltransferase [Source:UniProtKB/TrEMBL;Acc:Q17BA9]
AAEL011901	AAEL011901-RA	Aedes aegypti LVP_AGWG	1-acyl-sn-glycerol-3-phosphate acyltransferase
AAEL011898	AAEL011898-RB	Aedes aegypti LVP_AGWG	1-acyl-sn-glycerol-3-phosphate acyltransferase
AAEL011898	AAEL011898-RC	Aedes aegypti LVP_AGWG	1-acyl-sn-glycerol-3-phosphate acyltransferase
AAEL011898	AAEL011898-RD	Aedes aegypti LVP_AGWG	1-acyl-sn-glycerol-3-phosphate acyltransferase
AAEL011898	AAEL011898-RE	Aedes aegypti LVP_AGWG	1-acyl-sn-glycerol-3-phosphate acyltransferase

Add metadata to table

Download sequences

Download table of Gene metadata

Perform an enrichment analysis

Gene Ontology Enrichment

Metabolic Pathway Enrichment

Select Columns ✕

[Update Columns]

select all | clear all | expand all | collapse all | reset to current | reset to default

Search Columns ▾ ❓

▶ ☐ Search Specific
▶ ☐ Gene models
▼ ☐ Annotation, curation and identifiers
   ☐ Gene Name or Symbol
   ☐ Previous ID(s)
   ☑ Product Description
   ☐ Transcript Product Description
▶ ☐ Link outs
▶ ☐ Genomic Location
▼ ☑ Taxonomy
   ☑ Organism
▶ ☐ Orthology and synteny
▶ ☐ Transcriptomics
▶ ☐ Protein features and properties
▶ ☐ Protein targeting and localization
▼ ☐ Function prediction
   ☐ Computed GO Component IDs
   ☐ Computed GO Components
   ☐ Computed GO Function IDs
   ☐ Computed GO Functions
   ☐ Computed GO Process IDs
   ☐ Computed GO Processes
   ☐ Curated GO Component IDs
   ☐ Curated GO Components
   ☐ Curated GO Function IDs
   ☐ Curated GO Functions
   ☐ Curated GO Process IDs
   ☐ Curated GO Processes
   ☐ EC numbers
   ☐ EC numbers from OrthoMCL

select all | clear all | expand all | collapse all | reset to current | reset to default

[Update Columns]

Download Genes

Results are from search: Organism

Choose a Report: ◉ Tab- or comma-delimited (openable in Excel) - choose columns to make a custom table ❓
               ○ Tab- or comma-delimited (openable in Excel) - choose a pre-configured table ❓
               ○ FASTA - sequence retrieval, configurable ❓
               ○ GFF3 - gene models and optional sequences ❓
               ○ Standard JSON ❓

Note: IDs will automatically be included in the report and the report will be sorted by ID.

Choose Columns

select all | clear all | expand all | collapse all

Search Columns... ▾ ❓

▶ ☐ Search Specific
▶ ☐ Gene models
▼ ☐ Annotation, curation and identifiers
   ☐ Gene has Unmatched Transcripts
   ☐ Gene Name or Symbol
   ☐ gene_source_id
   ☐ Previous ID(s)
   ☑ Product Description
   ☐ Transcript Product Description
▶ ☐ Link outs
▼ ☐ Genomic Location
   ☐ Chromosome

Choose Rows

☐ Include only one transcript per gene (the longest)

Download Type

○ Tab-delimited (.txt) file
○ Comma-delimited (.csv) file*
◉ Show in browser

Additional Options

☑ Include header row (column names)

Download Genes

Results are from search: Organism

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               ○ Tab- or comma-delimited (openable in Excel) - choose a pre-configured table ❓
               ◉ FASTA - sequence retrieval, configurable ❓
               ○ GFF3 - gene models and optional sequences ❓
               ○ Standard JSON ❓

Choose the type of sequence:

◉ Genomic
○ Protein
○ CDS
○ Transcript

Choose the region of the sequence(s):

Begin at [Transcription Start*** ▾] [+ ▾] [0] nucleotides
End at   [Transcription Stop*** ▾] [+ ▾] [0] nucleotides