

How To: Download the nucleotide sequence of all MCR-1 alleles

NCBI Pathogen Detection

<https://www.ncbi.nlm.nih.gov/pathogens>



U.S. National Library of Medicine
National Center for Biotechnology Information

How do I download the nucleotide sequence of all MCR-1 alleles?

- Use [MicroBIGG-E](#)
- Use filters or search to select Element symbol “mcr-1”
- Download nucleotide fasta file

Pathogen Detection BETA



To assist the National Database of Antibiotic Resistant Organisms (NDARO), NCBI Pathogen Detection identifies the antimicrobial resistance, stress response, and virulence genes found in bacterial genomic sequences. This enables scientists to track the spread of resistance genes and to understand the relationships between antimicrobial resistance and virulence.

NCBI Pathogen Detection integrates bacterial pathogen genomic sequences originating in food, environmental sources, and patients. It quickly clusters and identifies related sequences to uncover potential food contamination sources, helping public health scientists investigate foodborne disease outbreaks.



There has been a change to the *Isolation type / epi_type* attribute that affects *min-same/min-diff* computation. Now where an isolate has no information to support the setting *environmental/other* the Browser will no longer default to that value but instead present as *NULL*. This means that the *min-same/min-diff* values for this isolate will present as *n/a*, and other *min-same/min-diff* values for isolates clustered with this isolate may change. Please see the [Help](#) text for more details.

Learn More

[About](#)

[FAQ](#)

[Browser Factsheet](#)

[Antimicrobial Resistance Factsheet](#)

[Antimicrobial Resistance](#)

[Contributors](#)

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1. Click MicroBIGG-E

Data Resource

[Isolates Browser](#)

[Microbial Browser for Identification of Genetic and Genomic Elements \(MicroBIGG-E\)](#)

[Reference Gene Catalog](#)

NEW [Reference HMM Catalog](#)

This interface contains a search bar for sequences that have genomic sequence data available in GenBank and have genotypes identified by AMRFinderPlus at the time they were analyzed.

Search

The MicroBIGG-E table and the underlying sequences may be added as cloud resource. If you are interested, contact us at: pd-help@ncbi.nlm.nih.gov

Filters **15**

Available filters

Filter	
<input type="checkbox"/>	Host
<input type="checkbox"/>	Protein
<input type="checkbox"/>	BioSample
<input type="checkbox"/>	Isolation type
<input checked="" type="checkbox"/>	Element symbol
<input type="checkbox"/>	Isolation source
<input type="checkbox"/>	Contig
<input type="checkbox"/>	Start
<input type="checkbox"/>	Stop
<input type="checkbox"/>	Element name
<input type="checkbox"/>	Type

15 Element symbol

Search

Element symbol	Count	
<input checked="" type="checkbox"/>	mcr-1.1	4144
<input checked="" type="checkbox"/>	mcr-1	144
<input checked="" type="checkbox"/>	mcr-1.26	102
<input checked="" type="checkbox"/>	mcr-10.1	94
<input checked="" type="checkbox"/>	mcr-1.2	33
<input checked="" type="checkbox"/>	mcr-1.5	15
<input checked="" type="checkbox"/>	mcr-1.7	11
<input checked="" type="checkbox"/>	mcr-10	6
<input checked="" type="checkbox"/>	mcr-1.19	3
<input checked="" type="checkbox"/>	mcr-1.18	2
<input checked="" type="checkbox"/>	mcr-1.27	2
<input checked="" type="checkbox"/>	mcr-1.11	1
<input checked="" type="checkbox"/>	mcr-1.28	1
<input checked="" type="checkbox"/>	mcr-1.4	1
<input checked="" type="checkbox"/>	mcr-1.9	1

Total unique values: 15

2. Click Filters bar to show filters

3. Click Element symbol to show organism group and isolation type filters

4. Select MCR alleles of interest

This interface contains a subset of the isolates from the Isolate Browser that have genomic sequence data available in GenBank and have genotypes identified by AMRFinderPlus at the time they were analyzed.

Search

5. Note search syntax

The MicroBIGG-E table and the underlying sequences may be added as cloud resources for those users who are interested, contact us at: pd-help@ncbi.nlm.nih.gov

Filters **15**

Filtered by: element_symbol:(`"mcr-1.1" "mcr-1" "mcr-1.26" "mcr-10.1" "mcr-1.2" "mcr-1.5" "mcr-1.7" "mcr-10" "mcr-1.19" "mcr-1.18" "mcr-1.27" "mcr-1.11" "mcr-1.28" "mcr-1.4" "mcr-1.9"`)

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#	HMM accession	Closest referenc...	Closest referenc...	Strain	Scientific name	Elemen...	Protein	BioSample	Isolation ...	Elemen...	Isolation source
1	NF033862.2	WP_023332837.1	phosphoethanol...	WCHER090...	Enterobacter rogge...	539	WP_023332837.1	SAMN12995719	clinical	mcr-10.1	
2	NF033862.2	WP_023332837.1	phosphoethanol...	EC56	Enterobacter ludwigii	539	WP_023332837.1	SAMN16911615	clinical	mcr-10.1	blood
3	NF033862.2	WP_023332837.1	phosphoethanol...	4928STDY7...	Enterobacter asburiae	539	WP_023332837.1	SAMEA1045674...	clinical	mcr-10.1	faecal
4	NF033862.2	WP_023332837.1	phosphoethanol...	97COLEN	Enterobacter rogge...	539	WP_023332837.1	SAMN17807596	clinical	mcr-10.1	feces
5	NF033862.2	WP_023332837.1	phosphoethanol...		Enterobacter rogge...	539	EHF8235031.1	SAMN06680410	clinical	mcr-10.1	bronchial alveol...
6	NF033862.2	WP_023332837.1	phosphoethanol...		Enterobacter rogge...	539	EHF8235219.1	SAMN06680410	clinical	mcr-10.1	bronchial alveol...
7	NF033862.2	WP_023332837.1	phosphoethanol...	Res13-Abat...	Enterobacter rogge...	539	WP_023332837.1	SAMN16304030	environm...	mcr-10.1	swab
8	NF000465.1	WP_049589868.1	phosphoethanol...	SCC4	Citrobacter braakii	541	WP_049589868.1	SAMN06215934	environm...	mcr-1.1	

This interface contains a subset of the isolated genomic sequence data available in GenBank and have genotypes identified by AMRFinderPlus at the time they were analyzed.

Search

6. Click Download

The MicroBIGG-E table and the underlying sequences may be added to other resources for those users interested in the entire dataset. If you are interested, contact us at: pd-help@ncbi.nlm.nih.gov

Filters **15**

Filtered by: element_symbol:(("mcr-1.1" "mcr-1" "mcr-1.26" "mcr-10.1" "mcr-1.5" "mcr-1.7" "mcr-10" "mcr-1.19" "mcr-1.18" "mcr-1.27" "mcr-1.11" "mcr-1.28" "mcr-1.4" "mcr-1.9"))

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5	NF033862.2	WP_023332837.1	phosphoethanol...	SAMN06680410
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8	NF000465.1	WP_049589868.1	phosphoethanol...	SAMN06215934
9	NF000465.1	WP_049589868.1	phosphoethanol...	SAMN06649984
10	NF000465.1	WP_049589868.1	phosphoethanol...	SAMN06215934
11	NF000465.1	WP_049589868.1	phosphoethanol...	SAMN11928082
12	NF033862.2	WP_023332837.1	phosphoethanol...	SAMN07312475
13	NF033862.2	WP_023332837.1	phosphoethanol...	SAMD00129571
14	NF033862.2	WP_023332837.1	phosphoethanol...	SAMN05464624
15	NF000465.1	WP_049589868.1	phosphoethanol...	SAMN17292532
16	NF033862.2	WP_023332837.1	phosphoethanol...	SAMN04521883
17	NF033862.2	WP_023332837.1	phosphoethanol...	SAMN07779617

7. Select Element (element.fna) for nucleotide sequence of the *mcr* gene

8. Click Download

Download ✕

File type: Dataset (.zip) ▾

Sequence files

Contig (contig.fna)

Element (element.fna)

Element with flanks (element_with_flanks.fna)

Flank size: 100 ▴ ▾ bases

Protein (protein.faa)

Name: ncbi_dataset.zip

Download
Cancel

More information

- For full help documentation of the Reference Gene Catalog see:
https://www.ncbi.nlm.nih.gov/pathogens/pathogens_help/#reference-gene-catalog
- For details about filters see:
https://www.ncbi.nlm.nih.gov/pathogens/pathogens_help/#refgene-filters
- For details about the table downloads see:
https://www.ncbi.nlm.nih.gov/pathogens/pathogens_help/#refgene-access-download

Questions and further help: email pd-help@ncbi.nlm.nih.gov