

How To: Find an isolate you submitted

NCBI Pathogen Detection

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



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

At a glance

- Use the Pathogen Isolates Browser to locate your isolate
<https://www.ncbi.nlm.nih.gov/pathogens>
- Check the exceptions report
- Check the Submission Portal
- Ask for help

Pathogen Detection BETA

i 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 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 be as *n/a*, and other *min-same/min-diff* values for isolates clustered with this isolate will change. Please see the [Help](#) text for more details.

1. Search the Isolates Browser

Search isolates:

Search

Examples:

1. Search for isolates encoding a mobile colistin resistance gene and a KPC beta-lactamase
search: [AMR_genotypes:mcr*](#) AND [AMR_genotypes:blaKPC*](#)
2. Search for Salmonella isolates from the USA
search: [geo_loc_name: USA](#) AND [taxgroup_name: "Salmonella enterica"](#)

Searches:

| | |
|---|--|
| By biosample | <i>biosample_acc: SAMN02921631</i> |
| By strain or isolate name | <i>isolate_identifiers: CFSAN019912</i> |
| By SRA run | <i>Run: SRR13415101</i> |
| By bioproject | <i>bioproject_acc: PRJNA215355</i> |
| By assembly | <i>asm_acc: GCA_016619445.2</i> or <i>wgs_acc_prefix: AAYRYS</i> |
| By pathogen record creation date (when the record was received by Pathogen) | <i>creation_date: [2021-03-23 TO 2021-03-25]</i> or <i>taxgroup_name: "Listeria monocytogenes" AND new:1</i> |

- Searches can usually be entered without the prefix **<search term>**:
- You can also drop lists of identifiers into the search box

Isolate is found in Browser

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

Health > Pathogen Detection > Isolates Browser Help

Search: biosample_acc: SAMN02921631

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Filters

Matched Clusters count:1

| # | Organism groups | SNP cluster | Matched isolates | Matched clinical isolates | Matched environmental isolates | Total isolates | Minimal min-diff | Minimal min-same | Latest update |
|---|------------------------|----------------|------------------|---------------------------|--------------------------------|----------------|------------------|------------------|---------------|
| 1 | Listeria monocytogenes | PD5000025475.8 | 1 | 0 | 1 | | 24 | 2 | 2021-09-18 |

Matched Isolates

Page 1 of 1 Records per Page 20 Choose columns Download Hide plus AMR genotypes Expand all Cross-browser selection Displaying 1 - 1 of 1

| # | Organism Group | WGS Prefix | Strain | Isolate identifiers | Run | Project | Serovar | Isolate | Create date | Locat... | Isolation Source | Isolation ... | SNP cluster | Min-same | Min-diff | BioSample | Assembly | AMR genotypes | Computed type |
|---|--------------------|------------|-------------|---|-------------|-------------|---------|----------------|-------------|----------|------------------|---------------|----------------|----------|----------|--------------|-----------------|---------------|---------------|
| 1 | Listeria monocy... | AAYRYS | FDA266331-1 | CFSAN019912 FDA00005374 FDA266331-1 SR58014367 | SRR13415101 | PRJNA212117 | 355 | PDT000931436.2 | 2021-03-23 | USA: ... | sliced turkey | environm... | PD5000025475.8 | 2 | 24 | SAMN02921631 | GCA_016619445.2 | | |

2. Normal result.

3a. Follow link to its position in the cluster

3b. This isolate didn't cluster

Health > Pathogen Detection > Isolates Browser Help

Search: SAMN21478986

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Filters

Matched Isolates

Page 1 of 1 Records per Page 20 Choose columns Download Hide plus AMR genotypes Expand all Cross-browser selection Displaying 1 - 1 of 1

| # | Organism Group | WGS Prefix | Strain | Isolate identifiers | Run | BioProject | Serovar | Isolate | Create date | Locat... | Isolation Source | Isolation ... | SNP cluster | Min-same | Min-diff | BioSample | Assembly | AMR genotypes | Computed type |
|---|--------------------|------------|--------------|-----------------------------|-------------|-------------|---------|----------------|-------------|----------|------------------|---------------|-------------|----------|----------|--------------|----------|---------------|---------------|
| 1 | Listeria monocy... | | PNUSAL011... | PNUSAL011615 SR510221114 | SRR15955332 | PRJNA212117 | | PDT001132348.1 | 2021-09-18 | USA | | clinical | | n/a | n/a | SAMN21478986 | | | |

Isolate is found in Browser - 2

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

Health > Pathogen Detection > Isolates Browser Help

Search: biosample_acc: SAMN2055641d Share Save Saved Searches Watched Isolates

Isolate Exceptions Download

| # | exception type | exception | consequence | lower limit | upper limit | actual value | BioSample | run(s) | Isolate | Assembly | organism | strain | sra center |
|---|----------------------------|-----------------------|---------------|-------------|-------------|--------------|--------------|-------------|--------------|----------|------------------------|--------|------------|
| 1 | Readset validation failure | Insufficient coverage | Not published | 20 | | 12 | SAMN20556410 | SRR15340762 | PDT001103... | | Listeria monocytogenes | 850064 | PHE |

Filters

Matched Isolates No data to display

Page 0 of 0 Records per Page 20 Choose columns Download Hide types Expand all Cross-browser selection

| # | Organism Group | WGS Prefix | Strain | Isolate identifiers | Run | BioProject | Isolate | Create date | Locat... | Isolation Source | Isolation ... | SNP cluster | Min-same | Min-diff | BioSample | Assembly | AMR genotypes | Computed type |
|---|----------------|------------|--------|---------------------|-----|------------|---------|-------------|----------|------------------|---------------|-------------|----------|----------|-----------|----------|---------------|---------------|
|---|----------------|------------|--------|---------------------|-----|------------|---------|-------------|----------|------------------|---------------|-------------|----------|----------|-----------|----------|---------------|---------------|

No matching results

4. The searched isolate is found, but not in the regular results. It had an “exception”, meaning something was wrong with the data and it couldn't be used.

[More about pathogen isolate exceptions...](#)

Isolate not found

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

Organism Groups

| Species | Version | Publication Date* | Latest Isolate Creation Date* | Clusters | New Isolates | New Clinical Isolates | New Environmental Isolates | Total Isolates |
|---|-------------------|-------------------|-------------------------------|----------|--------------------|-----------------------|----------------------------|------------------------|
| Salmonella enterica | PDG000000002.2298 | 2021-09-19 10:11 | 2021-09-16 19:31 | 18,965 | | | | |
| E.coli and Shigella | PDG000000004.2889 | 2021-09-19 14:31 | 2021-09-18 10:48 | 19,365 | | | | |
| Campylobacter jejuni | PDG000000003.1498 | 2021-09-18 08:31 | 2021-09-18 01:30 | | | | | |
| Listeria monocytogenes | PDG000000001.2394 | 2021-09-18 07:52 | 2021-09-18 01:30 | 3,880 | | | | |
| Klebsiella pneumoniae | PDG000000012.1011 | 2021-09-20 08:14 | 2021-09-18 22:00 | 4,033 | | | | |
| Streptococcus pneumoniae | PDG000000074.38 | 2021-09-20 08:05 | 2021-09-16 06:51 | 3,738 | | | | |
| Staphylococcus aureus | PDG000000073.170 | 2021-09-19 08:00 | 2021-09-18 07:51 | 3,126 | | | | |
| Enterococcus faecium | PDG000000071.194 | 2021-09-18 08:23 | 2021-09-14 22:45 | 921 | 15 | 5 | 10 | 19,822 |
| Clostridioides difficile | PDG000000045.260 | 2021-09-17 06:31 | 2021-09-17 03:33 | 519 | 3 | 3 | 0 | 18,114 |
| Neisseria | PDG000000032.225 | 2021-09-07 07:43 | 2021-08-05 22:00 | 1,242 | 0 | 0 | 0 | 16,047 |
| Pseudomonas aeruginosa | PDG000000036.505 | 2021-09-18 08:31 | 2021-09-18 00:34 | 1,059 | 22 | 21 | 0 | 12,988 |
| Acinetobacter baumannii | PDG000000010.616 | 2021-09-18 08:40 | 2021-09-18 00:34 | 705 | 70 | 69 | 0 | 12,766 |
| Mycobacterium tuberculosis | PDG000000034.221 | 2021-09-09 06:56 | 2021-09-07 22:01 | 771 | 1 | 1 | 0 | 8,504 |
| Enterococcus faecalis | PDG000000072.173 | 2021-09-17 06:07 | 2021-09-17 01:32 | 991 | 3 | 0 | 3 | 7,254 |
| Vibrio cholerae | PDG000000055.226 | 2021-09-16 07:31 | 2021-09-16 02:33 | 206 | 4 | 4 | 0 | 5,675 |
| Enterobacter | PDG000000028.515 | 2021-09-18 07:43 | 2021-09-18 00:34 | 595 | 10 | 5 | 3 | 5,641 |
| Vibrio parahaemolyticus | PDG000000023.485 | 2021-09-18 08:42 | 2021-09-17 21:34 | 396 | 3 | 3 | 0 | 4,698 |
| Legionella pneumophila | PDG000000026.129 | 2021-09-18 08:02 | 2021-09-14 14:27 | 199 | 1 | 1 | 0 | 4,406 |
| Staphylococcus pseudintermedius | PDG000000042.219 | 2021-09-18 08:14 | 2021-09-15 07:28 | 123 | 49 | 49 | 0 | 2,620 |

5. Check the *Latest Isolate Creation Date*, is it before the date when your isolate was submitted?

If not then you should wait for the next publication. Check back on this page.

Note: Salmonella in particular can take several days to recompute.

Isolate not found

Things to check if you still can't find it:

- Is the isolate found in NCBI Entrez BioSample?
- <https://www.ncbi.nlm.nih.gov/biosample/SAMN21478986>
- If not, then check the Submission Portal
- <https://submit.ncbi.nlm.nih.gov/>
- If so, then have you registered your bioproject with the Pathogen project ? This is necessary for the system to “listen for” new isolates from your project.
 - To register send a request to pd-help@ncbi.nlm.nih.gov
- Still having problems? Write to pd-help@ncbi.nlm.nih.gov

More information

- For full help documentation of the Pathogen Isolates Browser: https://www.ncbi.nlm.nih.gov/pathogens/pathogens_help/#isolates-browser
- For Submission Portal documentation on SRA: <https://submit.ncbi.nlm.nih.gov/about/sra/>
- For Submission Portal documentation on WGS or Complete Genome submission: <https://submit.ncbi.nlm.nih.gov/about/genome/>

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