

# BV-BRC Test Report

## V4. Genome Alignment Viewer

|               |                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Item to test  | Genome Alignment Viewer                                                                                                                                                                                                                                                                                                                                                                   |
| URL           | <a href="https://www.bv-brc.org/view/GenomeAlignment/ARWattam@patricbrc.org/BV-BRC%20Workshop/Genome%20Alignment/Brucella/.Brucella%20genome%20group%20alignment%20alpha%20test/alignment.json">https://www.bv-brc.org/view/GenomeAlignment/ARWattam@patricbrc.org/BV-BRC%20Workshop/Genome%20Alignment/Brucella/.Brucella%20genome%20group%20alignment%20alpha%20test/alignment.json</a> |
| Prerequisites | None                                                                                                                                                                                                                                                                                                                                                                                      |
| Tester(s)     | Rebecca Wattam                                                                                                                                                                                                                                                                                                                                                                            |
| References    | <a href="https://www.bv-brc.org/docs/quick_references/services/proteome_comparison_service.html">https://www.bv-brc.org/docs/quick_references/services/proteome_comparison_service.html</a>                                                                                                                                                                                               |
| Test date     | 7-Feb-22 (original - passed), 10-May-2022 (follow-up - passed)                                                                                                                                                                                                                                                                                                                            |
| Test Result   | <b>Passed</b>                                                                                                                                                                                                                                                                                                                                                                             |

### Overview

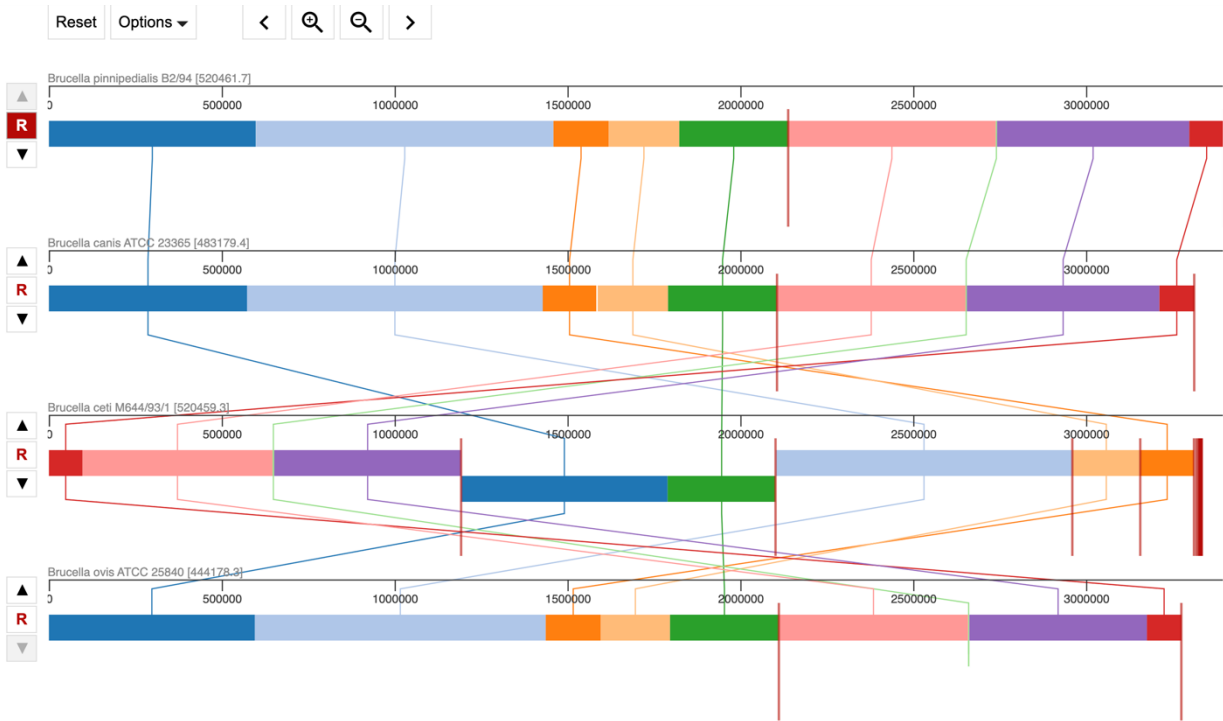
- Test the Genome Alignment Viewer using an example set of bacterial genomes.
- Test zoom.
- Test ordering.
- Test flyovers and links.

### Test Results

- Test results were verified by inspection.
- All visualization functions performed as expected.

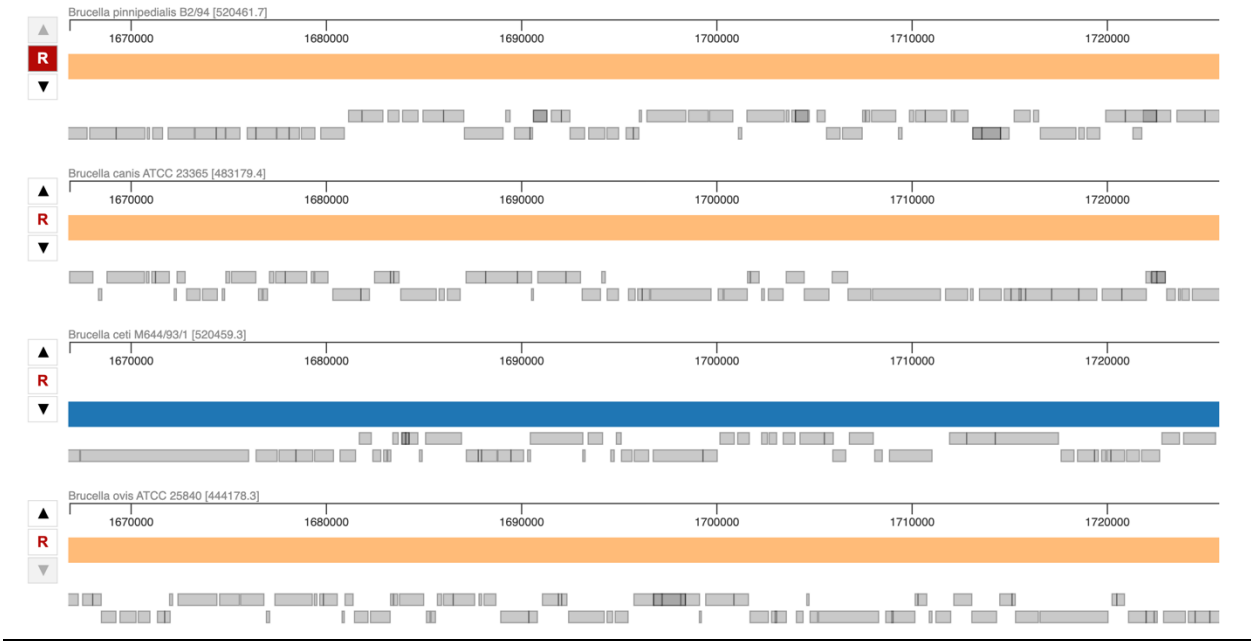
Genome Set: [

| Genome ID | Genome Name                  |
|-----------|------------------------------|
| 444178.3  | Brucella ovis ATCC 25840     |
| 483179.4  | Brucella canis ATCC 23365    |
| 520459.3  | Brucella ceti M644/93/1      |
| 520461.7  | Brucella pinnipedialis B2/94 |



Color coding of segments, rearrangements, deletions, gaps:

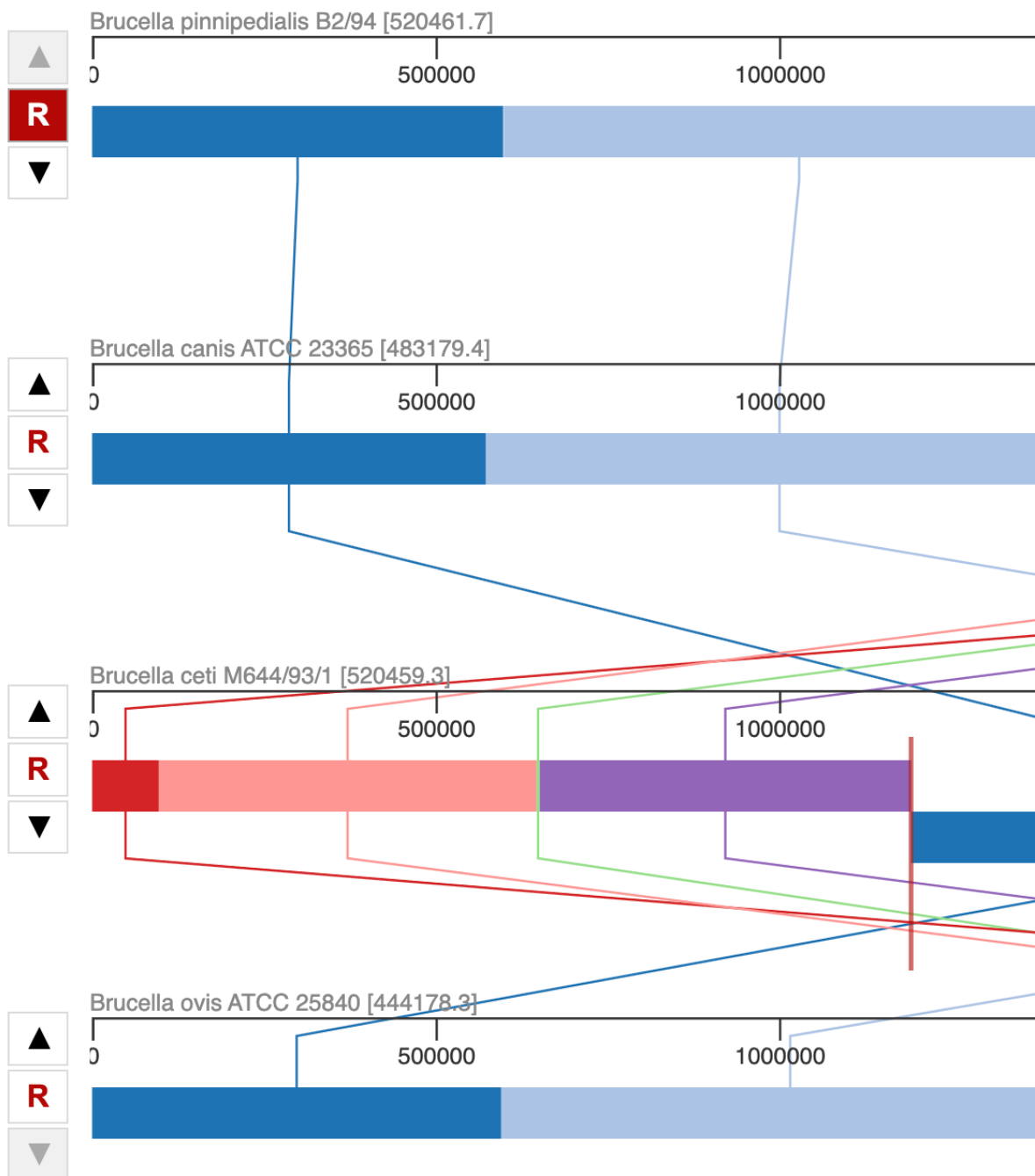
Zoom:



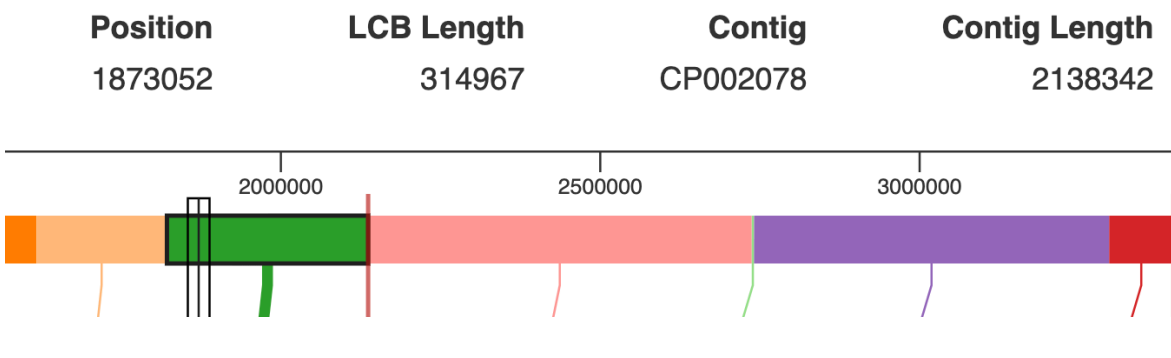
Ordering:

SELECTED GENOMES:

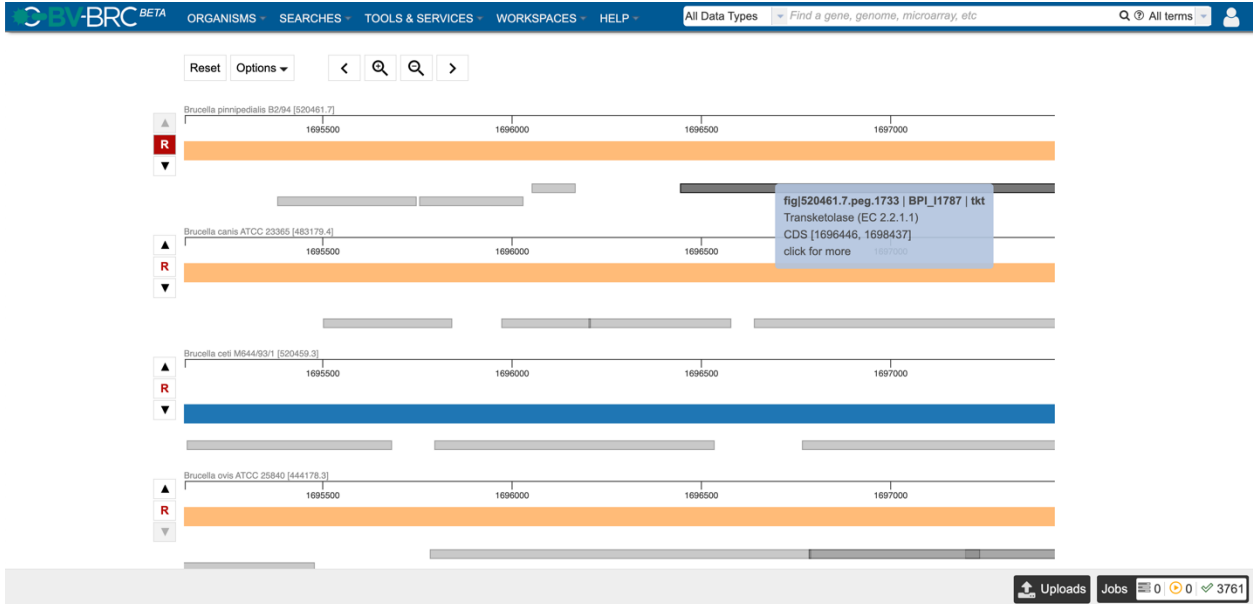
| Name                                            | ID       |   |
|-------------------------------------------------|----------|---|
| Brucella pinnipedialis B2/94 [Reference Genome] | 520461.7 | ✕ |
| Brucella canis ATCC 23365                       | 483179.4 | ✕ |
| Brucella ceti M644/93/1                         | 520459.3 | ✕ |
| Brucella ovis ATCC 25840                        | 444178.3 | ✕ |



Flyovers:



Links:



## Feature Summary



 **fig|520461.7.peg.1733**

### Genome

|                    |                                     |
|--------------------|-------------------------------------|
| <b>Genome ID</b>   | 520461.7                            |
| <b>Genome Name</b> | <i>Brucella pinnipedialis</i> B2/94 |
| <b>Taxon ID</b>    | 520461                              |

### Source

|                     |        |
|---------------------|--------|
| <b>Annotation</b>   | PATRIC |
| <b>Feature Type</b> | CDS    |

### Identifiers

|               |                       |
|---------------|-----------------------|
| <b>BRC ID</b> | fig 520461.7.peg.1733 |
|---------------|-----------------------|

### Database Cross References

|                         |            |
|-------------------------|------------|
| <b>RefSeq Locus Tag</b> | BPI_I1787  |
| <b>Protein ID</b>       | AEK55023.1 |

### Location

|                 |                  |
|-----------------|------------------|
| <b>Start</b>    | 1696446          |
| <b>End</b>      | 1698437          |
| <b>Strand</b>   | +                |
| <b>Location</b> | 1696446..1698437 |

### Sequences

|                    |                      |
|--------------------|----------------------|
| <b>NA Length</b>   | 1992                 |
| <b>AA Length</b>   | 663                  |
| <b>NA Sequence</b> | <a href="#">view</a> |
| <b>AA Sequence</b> | <a href="#">view</a> |



Feature View

Bacteria » Proteobacteria » Alphaproteobacteria » Hyphomicrobiales » Brucellaceae » Brucella » Brucella pinnipedialis » Brucella pinnipedialis B2/94

fig|520461.7.peg.1733 | BPI\_11787 | tkt | Transketolase (EC 2.2.1.1)

Overview

Genome Browser

Compare Region Viewer

Transcriptomics

Interactions

Domain and Motifs

Protein Structures

fig|520461.7.peg.1733

1692511

CP002078

1701398

←

←

←

←

→

tkt

→

gap

→

pgk

←

|                           |                              |
|---------------------------|------------------------------|
| Genome                    |                              |
| Genome ID                 | 520461.7                     |
| Genome Name               | Brucella pinnipedialis B2/94 |
| Taxon ID                  | 520461                       |
| Source                    |                              |
| Annotation                | PATRIC                       |
| Feature Type              | CDS                          |
| Identifiers               |                              |
| BRC ID                    | fig 520461.7.peg.1733        |
| Database Cross References |                              |
| RefSeq Locus Tag          | BPI_11787                    |
| Protein ID                | AEK55023.1                   |
| Location                  |                              |
| Start                     | 1696446                      |
| End                       | 1698437                      |
| Strand                    | +                            |
| Location                  | 1696446..1698437             |
| Sequences                 |                              |
| NA Length                 | 1992                         |

Functional Properties

|                      |                                                                                                                                                                                         |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PATRIC Local Family  | PLF_234_00000516                                                                                                                                                                        |
| PATRIC Global Family | PGF_01136362                                                                                                                                                                            |
| FIGfam               | FIG00020289                                                                                                                                                                             |
| Identical Proteins   | <a href="#">View (new tab)</a>                                                                                                                                                          |
| Identical Genes      | <a href="#">View (new tab)</a>                                                                                                                                                          |
| GO Terms             | GO:0004802 transketolase activity                                                                                                                                                       |
| EC Numbers           | 2.2.1.1 Transketolase                                                                                                                                                                   |
| Pathways             | <a href="#">KEGG:00710</a> Carbon fixation in photosynthetic organisms<br><a href="#">KEGG:00030</a> Pentose phosphate pathway<br><a href="#">KEGG:01051</a> Biosynthesis of ansamycins |
| Subsystems           | Pentose phosphate pathway Transketolase (EC 2.2.1.1)                                                                                                                                    |

Submit a request for structure determination to SSGCID