

**TAXONDC: CALCULATING THE SIMILARITY VALUE OF THE 16S RRNA GENE SEQUENCES OF
PROKARYOTES OR ITS REGIONS OF FUNGI**

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Sequence name: DSM_13165 ×

Sequence details

Full name ✎ DSM_13165

Length 1,499 bp Sequence

Orientation Forward

Completeness 100.0% (1 ~ 1499)

Database ver. 2017.01

List of hits from EzBioCloud 16S database

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| Hit taxon name | Hit strain name | Accession | Similarity | Diff/Total nt | Hit taxonomy |
|--|-----------------|-----------|---------------|---------------|---|
| Ignicoccus islandicus | DSM 13165(T) | CP006867 | <u>100.00</u> | 0/1499 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Ignicoccus |
| Ignicoccus pacificus | LPC33(T) | AJ271794 | 98.35 | 22/1331 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Ignicoccus |
| Ignicoccus hospitalis | KIN4/I(T) | CP000816 | 96.84 | 45/1422 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Ignicoccus |
| EU428004_s | 4136-1-20 | EU428004 | 96.49 | 33/940 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Ignicoccus |
| AB235327_s | pYK04-8A-2 | AB235327 | 95.66 | 39/899 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Ignicoccus |
| Staphylothermus hellenicus | DSM 12710(T) | CP002051 | 94.53 | 82/1498 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Staphylothermus |
| Staphylothermus marinus | F1(T) | CP000575 | 94.46 | 83/1498 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Staphylothermus |
| EU428003_s | 4136-1-21 | EU428003 | 93.83 | 58/940 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;EU428003_g |
| Thermogladus calderae | 1633(T) | CP003531 | 93.61 | 93/1456 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Thermogladus |
| AJ299166_s | 20b-15 | AJ299166 | 93.38 | 62/936 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Staphylothermus |

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Supplementary Fig. 1. The 16S rRNA gene sequence similarity value of the *Ignicoccus islandicus* (CP006867) and *Ignicoccus pacificus* (AJ271794) pair compared is 98.35% (underlined) calculated using the latest version of EzBioCloud.

Sequence name: LPC33 ×

Sequence details

Full name ✎ LPC33

Length 1,331 bp Sequence

Orientation Forward

Completeness 89.1%
(25 ~ 1355)

Database ver. 2017.01

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| Hit taxon name | Hit strain name | Accession | Similarity | Diff/Total nt | Hit taxonomy |
|-----------------------------------|-----------------|-----------|------------|---------------|---|
| <i>Ignicoccus pacificus</i> | LPC33(T) | AJ271794 | 100.00 | 0/1331 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Ignicoccus |
| <i>Ignicoccus islandicus</i> | DSM 13165(T) | CP006867 | 98.27 | 23/1331 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Ignicoccus |
| <i>Ignicoccus hospitalis</i> | KIN4/I(T) | CP000816 | 97.37 | 35/1331 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Ignicoccus |
| EU428004_s | 4136-1-20 | EU428004 | 95.73 | 39/913 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Ignicoccus |
| AB235327_s | pYK04-8A-2 | AB235327 | 95.18 | 42/871 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Ignicoccus |
| <i>Staphylothermus hellenicus</i> | DSM 12710(T) | CP002051 | 94.29 | 76/1330 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Staphylothermus |
| <i>Staphylothermus marinus</i> | F1(T) | CP000575 | 94.14 | 78/1330 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Staphylothermus |
| EU428003_s | 4136-1-21 | EU428003 | 93.64 | 58/912 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;EU428003_g |
| <i>Stetteria hydrogenophila</i> | 4ABC(T) | Y07784 | 93.63 | 82/1288 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Stetteria |
| <i>Thermogladus calderae</i> | 1633(T) | CP003531 | 93.53 | 86/1330 | Archaea;Crenarchaeota;Thermoprotei;Desulfurococcales;Desulfurococcaceae;Thermogladus |

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Supplementary Fig. 2. The 16S rRNA gene sequence similarity value of the *Ignicoccus pacificus* (AJ271794) and *Ignicoccus islandicus* (CP006867) pair compared is 98.27% (underlined) calculated using the latest version of EzBioCloud.

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Columns for display: Taxonomy Accession Pairwise Similarity Diff/Total nt

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Identification of *Geosmithia flava* [Edit](#)

Length of sequence: 523bp [View query sequence](#)

| Rank | Name | Accession | Pairwise Similarity (%) | Diff/Total nt |
|------|-------------------------------|-----------|-------------------------|---------------|
| 1 | <i>Geosmithia flava</i> | HF546221 | 100.00 | 0/523 |
| 2 | <i>Geosmithia flava</i> | HF546246 | 100.00 | 0/523 |
| 3 | <i>Geosmithia flava</i> | HF546302 | 100.00 | 0/523 |
| 4 | <i>Geosmithia flava</i> | HF546264 | 100.00 | 0/523 |
| 5 | <i>Geosmithia flava</i> | HF546317 | 100.00 | 0/495 |
| 6 | <i>Geosmithia flava</i> | HF546291 | 100.00 | 0/523 |
| 7 | <i>Geosmithia flava</i> | AJ578483 | 100.00 | 0/511 |
| 8 | <i>Geosmithia flava</i> | AM421040 | 100.00 | 0/510 |
| 9 | <i>Geosmithia flava</i> | HF546244 | 100.00 | 0/523 |
| 10 | <i>Geosmithia flava</i> | HE604133 | 100.00 | 0/509 |
| 11 | <i>Geosmithia flava</i> | AM181462 | 100.00 | 0/522 |
| 12 | <i>Geosmithia flava</i> | HF546344 | 100.00 | 0/523 |
| 13 | <i>Geosmithia flava</i> | AM181457 | 100.00 | 0/515 |
| 14 | <i>Geosmithia flava</i> | HF546248 | 100.00 | 0/523 |
| 15 | <i>Geosmithia flava</i> | HF546319 | 100.00 | 0/523 |
| 16 | <i>Geosmithia flava</i> | HF546305 | 100.00 | 0/523 |
| 17 | <i>Geosmithia flava</i> | HF546268 | 100.00 | 0/523 |
| 18 | <i>Geosmithia flava</i> | AM181461 | 100.00 | 0/515 |
| 19 | <i>Geosmithia flava</i> | AJ578484 | 100.00 | 0/515 |
| 20 | <i>Geosmithia flava</i> | HF546294 | 99.81 | 1/523 |
| 21 | <i>Geosmithia flava</i> | AM421041 | 99.61 | 2/515 |
| 22 | <i>Geosmithia fassatiae_1</i> | HF546338 | 99.04 | 5/523 |
| 23 | <i>Geosmithia fassatiae_1</i> | HF546272 | 99.04 | 5/523 |
| 24 | <i>Geosmithia fassatiae_1</i> | HF546270 | 99.04 | 5/523 |
| 25 | <i>Geosmithia fassatiae_1</i> | HF546275 | 99.04 | 5/523 |
| 26 | <i>Geosmithia fassatiae_1</i> | HF546239 | 98.85 | 6/523 |
| 27 | <i>Geosmithia fassatiae_1</i> | HF546247 | 98.83 | 6/515 |
| 28 | <i>Geosmithia fassatiae_2</i> | AM181456 | 98.45 | 8/515 |
| 29 | <i>Geosmithia fassatiae_1</i> | AM421039 | 98.45 | 8/515 |
| 30 | <i>Geosmithia fassatiae_1</i> | AJ578482 | 98.45 | 8/515 |
| 31 | <i>Geosmithia morbida</i> | KC113640 | 98.27 | 9/519 |
| 32 | <i>Geosmithia morbida</i> | HF546283 | 98.25 | 9/515 |
| 33 | <i>Geosmithia morbida</i> | FN434076 | 98.25 | 9/515 |
| 34 | <i>Geosmithia morbida</i> | FN434082 | 98.25 | 9/515 |
| 35 | <i>Geosmithia morbida</i> | FN434075 | 98.25 | 9/515 |
| 36 | <i>Geosmithia morbida</i> | FN811900 | 98.25 | 9/515 |
| 37 | <i>Geosmithia morbida</i> | FN434080 | 98.25 | 9/515 |
| 38 | <i>Geosmithia morbida</i> | HF546282 | 98.18 | 9/495 |
| 39 | <i>Geosmithia morbida</i> | FN811899 | 98.06 | 10/515 |
| 40 | <i>Geosmithia morbida</i> | FN434078 | 98.06 | 10/515 |
| 41 | <i>Geosmithia morbida</i> | FN436020 | 98.06 | 10/515 |
| 42 | <i>Geosmithia morbida</i> | HF546315 | 98.06 | 10/515 |
| 43 | <i>Geosmithia morbida</i> | FN434074 | 98.06 | 10/515 |
| 44 | <i>Geosmithia morbida</i> | FN434081 | 98.06 | 10/515 |
| 45 | <i>Geosmithia morbida</i> | FN434079 | 98.06 | 10/515 |
| 46 | <i>Geosmithia morbida</i> | FN434073 | 98.06 | 10/515 |
| 47 | <i>Geosmithia morbida</i> | FN811898 | 97.86 | 11/515 |
| 48 | <i>Geosmithia morbida</i> | FN434077 | 97.86 | 11/515 |

Supplementary Fig. 3. The ITS region similarity value of the *Geosmithia flava* (HF546291) and *Geosmithia morbida* (FN434081) pair compared is 98.06% (underlined) calculated using the previous version of EzBioCloud.

EZBIOCLOUD All

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Results

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My Information

Results of Identify Analysis

Columns for display: Taxonomy Accession Pairwise Similarity Diff/Total nt

Hide all Show all

Functions:

Identification of *Geosmithia morbida*

Length of sequence :521bp

| Rank | Name | Accession | Pairwise Similarity (%) | Diff/Total nt |
|-----------|--------------------------------|-----------------|-------------------------|---------------|
| 1 | <i>Geosmithia morbida</i> | FN434081 | 100.00 | 0/521 |
| 2 | <i>Geosmithia morbida</i> | FN811899 | 100.00 | 0/521 |
| 3 | <i>Geosmithia morbida</i> | FN434074 | 100.00 | 0/521 |
| 4 | <i>Geosmithia morbida</i> | FN434072 | 99.62 | 2/521 |
| 5 | <i>Geosmithia morbida</i> | FN811898 | 99.61 | 2/519 |
| 6 | <i>Geosmithia morbida</i> | FN434077 | 99.61 | 2/519 |
| 7 | <i>Geosmithia morbida</i> | HF546283 | 99.42 | 3/521 |
| 8 | <i>Geosmithia morbida</i> | FN434076 | 99.42 | 3/521 |
| 9 | <i>Geosmithia morbida</i> | KC113640 | 99.42 | 3/521 |
| 10 | <i>Geosmithia morbida</i> | FN434082 | 99.42 | 3/521 |
| 11 | <i>Geosmithia morbida</i> | FN434075 | 99.42 | 3/521 |
| 12 | <i>Geosmithia morbida</i> | FN811900 | 99.42 | 3/521 |
| 13 | <i>Geosmithia morbida</i> | FN434080 | 99.42 | 3/521 |
| 14 | <i>Geosmithia morbida</i> | FN434078 | 99.23 | 4/521 |
| 15 | <i>Geosmithia morbida</i> | HF546315 | 99.23 | 4/521 |
| 16 | <i>Geosmithia morbida</i> | FN434073 | 99.23 | 4/521 |
| 17 | <i>Geosmithia morbida</i> | FN434079 | 99.23 | 4/521 |
| 18 | <i>Geosmithia morbida</i> | FN436020 | 99.23 | 4/521 |
| 19 | <i>Geosmithia morbida</i> | HF546282 | 99.20 | 4/501 |
| 20 | <i>Geosmithia flava</i> | HF546317 | 98.38 | 8/495 |
| 21 | <i>Geosmithia flava</i> | HF546221 | 98.25 | 9/515 |
| 22 | <i>Geosmithia flava</i> | HF546248 | 98.25 | 9/515 |
| 23 | <i>Geosmithia flava</i> | HF546305 | 98.25 | 9/515 |
| 24 | <i>Geosmithia flava</i> | HF546264 | 98.25 | 9/515 |
| 25 | <i>Geosmithia flava</i> | HF546319 | 98.25 | 9/515 |
| 26 | <i>Geosmithia flava</i> | HF546246 | 98.25 | 9/515 |
| 27 | <i>Geosmithia flava</i> | HF546302 | 98.25 | 9/515 |
| <u>28</u> | <u><i>Geosmithia flava</i></u> | <u>HF546291</u> | <u>98.25</u> | <u>9/515</u> |
| 29 | <i>Geosmithia flava</i> | HF546344 | 98.25 | 9/515 |
| 30 | <i>Geosmithia flava</i> | HF546244 | 98.25 | 9/515 |
| 31 | <i>Geosmithia flava</i> | HF546268 | 98.25 | 9/515 |
| 32 | <i>Geosmithia flava</i> | AM421040 | 98.24 | 9/510 |
| 33 | <i>Geosmithia flava</i> | HE604133 | 98.23 | 9/509 |
| 34 | <i>Geosmithia fassatiae_1</i> | HF546272 | 98.06 | 10/515 |
| 35 | <i>Geosmithia flava</i> | HF546294 | 98.06 | 10/515 |
| 36 | <i>Geosmithia fassatiae_1</i> | HF546270 | 98.06 | 10/515 |
| 37 | <i>Geosmithia fassatiae_1</i> | HF546275 | 98.06 | 10/515 |
| 38 | <i>Geosmithia fassatiae_1</i> | HF546338 | 98.06 | 10/515 |
| 39 | <i>Geosmithia flava</i> | AM421041 | 97.86 | 11/515 |
| 40 | <i>Geosmithia obscura</i> | AJ784999 | 97.30 | 14/518 |
| 41 | <i>Geosmithia obscura</i> | AM181460 | 97.30 | 14/518 |
| 42 | <i>Geosmithia obscura</i> | EU807967 | 97.29 | 14/517 |

Supplementary Fig. 4. The ITS region similarity value of the *Geosmithia flava* (HF546291) and *Geosmithia morbida* (FN434081) pair compared is 98.25% (underlined) calculated using the previous version of EzBioCloud.