*Rhodococcus yananensis* sp. nov., isolated from microbial fermentation bed material from a pig farm

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**Table S1.** The comparative analysis of this 16S rRNA gene sequence (1366 bp) and those available from EzBioCloud server indicated that FCM22-1T is clearly related to members of the genus *Rhodococcus*. The similarity results of the first 15 strains are as follows, with ranging from 95 to 98%.

|  |  |  |
| --- | --- | --- |
| Top-hit taxon | Top-hit strain(T) | Similarity (%) |
| *Rhodococcus zopfii* | NBRC 100606 | |97.95 |
| *Rhodococcus rhodochrous* | NBRC 16069 | 97.73 |
| *Rhodococcus biphenylivorans* | TG9 | 97.66 |
| *Rhodococcus artemisiae* | YIM 65754 | 97.58 |
| *Rhodococcus phenolicus* | DSM 44812 | 97.44 |
| *Rhodococcus aetherivorans* | 10bc312 | 97.41 |
| *Rhodococcus gordoniae* | DSM 44689 | 97.36 |
| *Rhodococcus ruber* | DSM 43338 | 97.29 |
| *Rhodococcus pyridinivorans* | DSM 44555 | 97.29 |
| *Rhodococcus lactis* | DW151B | 97.29 |
| *Rhodococcus electrodiphilus* | JC435 | 97.28 |
| *Rhodococcus coprophilus* | NBRC 100603 | 96.78 |
| *Rhodococcus rhodnii* | NBRC 100604 | 96.55 |
| *Rhodococcus triatomae* | DSM 44892 | 96.55 |
| *Rhodococcus olei* | Ktm-20 | 96.33 |

**Table S2.** A part of physiological characteristics of strain FBM22-1T.

|  |  |  |
| --- | --- | --- |
| Characteristics | 　 | FBM22-1T |
| antibiotic |  penicillin | 1.31cm |
|  | ampicillin | 1.35cm |
|  | ceftriaxone | 1.40cm |
|  | gentamicin | 0.75cm |
|  | tetracycline | 0.60cm |
|  | erythromycin | 0.50cm |
|  | ciprofloxacin | 0.81cm |
|  | lincomycin | － |
|  | sulfamethoxazole tablets | － |
|  | chloramphenicol | 1.31cm |
| Nitrate reduction |  | ＋ |
| H2S production |  | － |
| denitrification |  | ＋ |
| Indole production |  | w |
| MR-VP | MR | － |
|  | VP | － |
| Optimum pH for growth  |  | 7 |
| Optimum temperature for growth (℃) |  | 30-37 |
| Optimum temperature for (w/v) NaCl | 　 | 0.50% |

**Table S3.** ANIb, ANIm and DDH value (%) of strain FBM22-1T with its phylogenetically related species.

Strains: 1, *Rhodococcus yananensis* FBM22-1T; 2, *Rhodococcus zopfii* NBRC 100606T; 3, *Rhodococcus rhodochrous* NBRC 16069T; 4, *Rhodococcus biphenylivorans* TG9T.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Speces name  | 　 | ANIb | 　 | ANIm | 　 | DDH | 　 | G+C% |
| 　 | 　 | 1 | 　 | 1 | 　 | 1 | 　 | 　 |
| 1 |  | \* |  | \* |  | 100 |  | 68.64 |
| 2 |  | 78.88 |  | 85.57 |  | 26.8 |  | 70 |
| 3 |  | 79.06 |  | 85.77 |  | 26.9 |  | 68.2 |
| 4 | 　 | 78.93 | 　 | 85.66 | 　 | 26.9 | 　 | 62.8 |