

Table 1: Key genomic features of *Nocardiopsis sp. ZS3416R2A* and *Nocardiopsis terrae* DSM 45157. Listed attributes include total genome size (bp), GC content (%), predicted number of coding sequences (CDS), proportion of the genome coding for proteins (%), average CDS length (bp), number of tRNA genes, and number of 16S rRNA gene copies. Quality metrics of genomes assemblies comprise completeness and contamination. CheckM assignation indicates the taxonomic classification based on genomic data.

Genome features	<i>Nocardiopsis sp.</i> ZS3416R2A	<i>Nocardiopsis terrae</i> DSM 45157
Size (bp)	6,181,636	6,036,863
GC-content (%)	70.48	70.82
Predicted CDS (number)	5,855	5,501
Genome coding (%)	87.39	86.99
Average CDS length (bp)	935.87	967.66
Number of tRNA genes	59	58
Number of 16S rRNA gene	5	5
Completeness (%)	99.45	100.00
Contamination (%)	0	0.54
CheckM Assignation	Actinomycetales	Actinomycetales

Table 2: Core, unique, and pan-genome components of *Nocardiopsis* sp. ZS3416R2A and *Nocardiopsis terrae* DSM 45157. The pan-genome encompasses all gene families found in either strain. The core genome consists of genes shared between *Nocardiopsis* sp. ZS3416R2A and *N. terrae* DSM 45157, while strain-specific CDS are coding sequences unique to one strain only. Percentages reflect how much of each genome is composed of core or strain-specific CDS.

Organism	Total CDS	Pan-genome size (CDS)	Core-genome (CDS, %)	Strain specific CDS
<i>Nocardiopsis terrae</i> DSM 45157	5,501	5,501	4,357 (79.20%)	1,144 (20.79%)
<i>Nocardiopsis</i> sp. ZS3416R2A	5,855	5,855	4,373 (74.68%)	1,482 (25.31%)

Table 3 : Different Major cellular fatty acid, phospholipids, menaquinones profiles (%) of strain *Nocardiopsis sp.* ZS3416R2A and its closely related type strain *Nocardiopsis terrae* DSM 45157.

Characteristics	<i>Nocardiopsis sp.</i> ZS3416R2A	<i>Nocardiopsis terrae</i> DSM 45157
Major fatty acids :		
iso-C16:0	44,1	36,5
10-methyl-C 18:0	14,5	14,3
anteiso-C 17:0	9,7	18,2
C18:0	7,1	2,2
iso-C18:0	7,0	2,3
10-methyl-C 17:0	4,3	10,8
Major phospholipids	DPG, PC, PG, PE,PI	DPG, PC, PG, PME
Major menaquinones	MK-9 (H4),MK-10 (H4,H6)	MK-9(H 8), MK-10(H 4, H6, H 8)
MK-8 (H4)	0,5	ND
MK-8 (H6)	ND	3,7
MK-9	0,7	ND
MK-9 (H4)	10,6	4,8
MK-9 (H6)	6,4	3,4
MK-9 (H8)	ND	25,5
MK-10	1,3	ND
MK-10 (H2)	3,0	ND
MK-10 (H4)	29,3	30,1
MK-10 (H6)	42,1	20,0
MK-10 (H8)	1,6	12,0

ND: Not detected ; **in bolt** : differences between ZS3416R2A and DSM 45157