

**Reclassification of the strain *Enterobacter* sp. FY-07 as *Kosakonia***

***oryzendophytica* FY-07 and its Potential to Promote Plants Growth**

Ge Gao<sup>a, †</sup>, Yan Zhang<sup>a, †</sup>, Shaofang Niu<sup>a</sup>, Yu Chen<sup>a</sup>, Shaojing Wang<sup>a</sup>, Nusratgul Anwar<sup>a</sup>, Shuai Chen<sup>a</sup>, Guoqiang Li<sup>a, b\*</sup>, Ting Ma<sup>a, b\*</sup>

**Affiliations**

<sup>a</sup> Key Laboratory of Molecular Microbiology and Technology, Ministry of Education, College of Life Sciences, Nankai University, Tianjin 300071, China

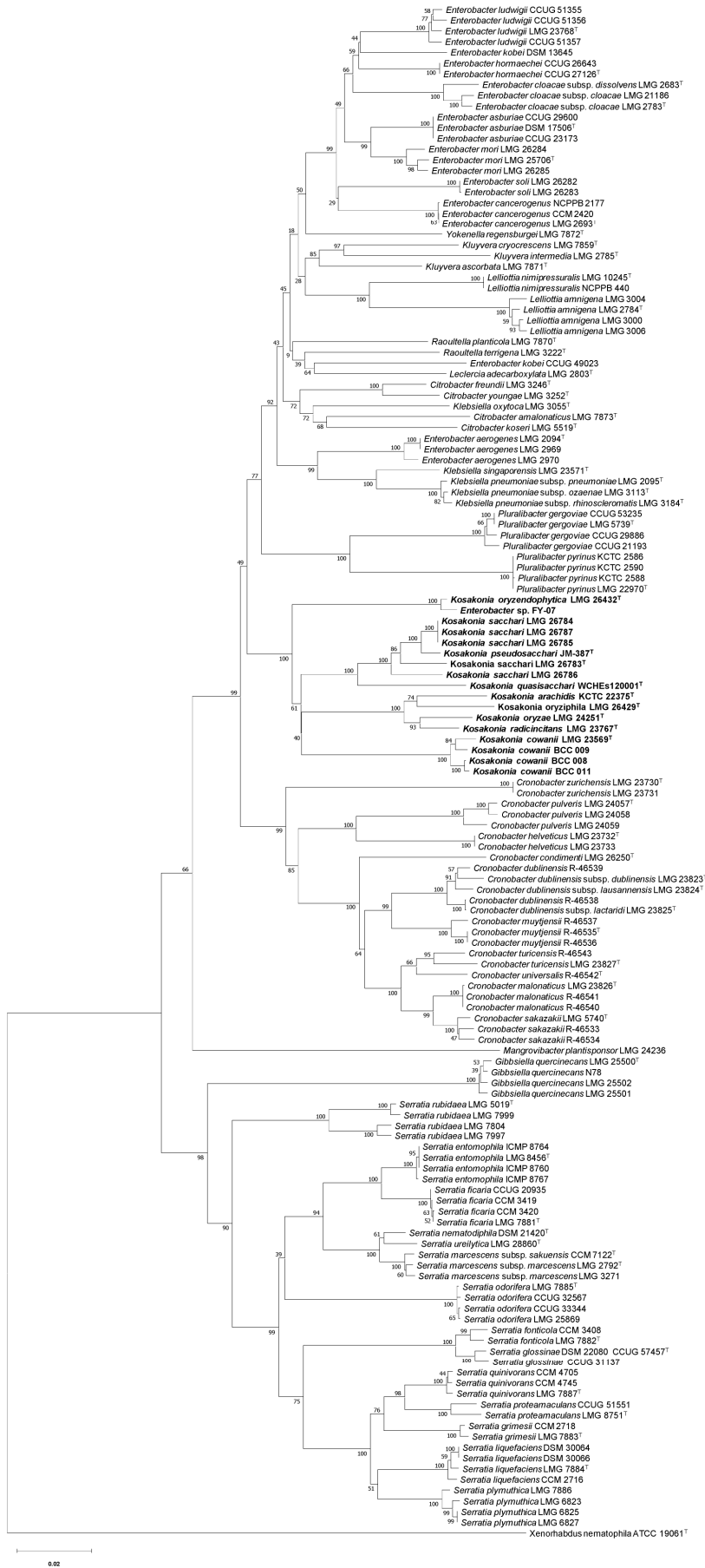
<sup>b</sup> Tianjin Engineering Technology Center of Green Manufacturing Biobased Materials, Tianjin 300071, China

**†These authors contributed equally to this paper.**

**\*Corresponding author**

Guoqiang Li: gqli@nankai.edu.cn

Ting Ma: tingma@nankai.edu.cn; Phone: 86-22-23508870; Fax: 86-22-23508870.



**Figure S1.** Neighbour-joining tree showing the phylogenetic relationships of strain FY-07 and phylogenetically related reference strains based on concatenated partial *atpD*, *gyrB*, *infB* and *rpoB* gene sequences. Bootstrap values based on 1000 resamplings are shown at branch nodes. Bar, 2% substitution rate per site.

**Table S1.** The GenBank/EMBL/DDBJ accession numbers for 16S rRNA gene sequences used in this study.

Strains	Accession Number
<i>Citrobacter cronae</i> Tue2_1 <sup>T</sup>	MN548424.1
<i>Citrobacter farmeri</i> CDC 2991-81 <sup>T</sup>	AF025371.1
<i>Citrobacter freundii</i> DSM 30039 <sup>T</sup>	AJ233408.1
<i>Citrobacter murlinae</i> CDC 2970-59 <sup>T</sup>	AF025369.1
<i>Citrobacter portucalensis</i> A60 <sup>T</sup>	MV FY01000035.1
<i>Citrobacter telavivum</i> 6105 <sup>T</sup>	MN603664.1
<i>Citrobacter werkmanii</i> NBRC 105721 <sup>T</sup>	BBMW01000025.1
<i>Citrobacter youngae</i> CCUG 30791 <sup>T</sup>	RPOI01000045.1
<i>Cronobacter zurichensis</i> LMG 23730 <sup>T</sup>	HQ992947.1
<i>Enterobacter bugandensis</i> EB-247 <sup>T</sup>	FYBI01000003.1
<i>Enterobacter cancerogenus</i> ATCC 33241 <sup>T</sup>	FYBA01000020.1
<i>Enterobacter chengduensis</i> WCHECI-C4 <sup>T</sup>	KY979142.1
<i>Enterobacter chuandaensis</i> 090028 <sup>T</sup>	MK049966.1
<i>Enterobacter cloacae</i> 630 ECLO	JUZJ01000090.1
<i>Enterobacter cloacae</i> S611	AXOM01000004.1
<i>Enterobacter cloacae</i> subsp. <i>cloacae</i> ATCC 13047 <sup>T</sup>	CP001918.1
<i>Enterobacter cloacae</i> subsp. <i>dissolvens</i> LMG 2683 <sup>T</sup>	Z96079.1
<i>Enterobacter huaxiensis</i> 090008 <sup>T</sup>	MK049964.1
<i>Enterobacter kobei</i> DSM 13645 <sup>T</sup>	CP017181.1
<i>Enterobacter lignolyticus</i> SCF1 <sup>T</sup>	CP002272.1
<i>Enterobacter ludwigii</i> EN-119 <sup>T</sup>	JTLO01000001.1
<i>Enterobacter oligotrophicus</i> CCA6 <sup>T</sup>	LC368255.1
<i>Enterobacter roggkampii</i> EN-117 <sup>T</sup>	CP017184.1
<i>Enterobacter sichuanensis</i> WCHECI1597 <sup>T</sup>	POVL01000141.1
<i>Enterobacter</i> sp. Bisph1	JXAG01000010.1
<i>Enterobacter</i> sp. R4-368	CP005991.1
<i>Enterobacter</i> sp. GN03164	LECZ01000016.1
<i>Enterobacter timonensis</i> MT20 <sup>T</sup>	FCOP01000010.1
<i>Enterobacter wuhouensis</i> WCHEW120002 <sup>T</sup>	SJOO01000031.1
<i>Klebsiella grimontii</i> 06D021 <sup>T</sup>	FZTC01000044.1
<i>Klebsiella michiganensis</i> W14 <sup>T</sup>	JQ070300.1
<i>Klebsiella oxytoca</i> JCM 1665 <sup>T</sup>	AB004754.1
<i>Klebsiella oxytoca</i> P620	CP046115.1
<i>Klebsiella pneumoniae</i> subsp. <i>ozaenae</i> ATCC 11296 <sup>T</sup>	Y17654.1
<i>Klebsiella quasipneumoniae</i> subsp. <i>quasipneumoniae</i> 01A030 <sup>T</sup>	HG933296.1
<i>Klebsiella quasipneumoniae</i> subsp. <i>similipneumoniae</i> 07A044 <sup>T</sup>	CBZR010000040.1

<i>Klebsiella quasivariicola</i> KPN1705 <sup>T</sup>	CP022823.1
<i>Klebsiella spallanzanii</i> SPARK_775_C1 <sup>T</sup>	MN091365.1
<i>Klebsiella variicola</i> subsp. <i>tropica</i> SB5531 <sup>T</sup>	CAAHGN010000012.1
<i>Khuyvera intermedia</i> CAV1151	CP011602.1
<i>Kosakonia arachidis</i> KCTC 22375 <sup>T</sup>	NR_116403.1
<i>Kosakonia cowanii</i> LMG 23569 <sup>T</sup>	NR_025566.1
<i>Kosakonia oryzae</i> LMG 24251 <sup>T</sup>	CP014007.1
<i>Kosakonia oryzendophytica</i> LMG 26432 <sup>T</sup>	JF795011.1
<i>Kosakonia oryziphila</i> LMG 26429 <sup>T</sup>	JF795013.1
<i>Kosakonia pseudosacchari</i> JM-387 <sup>T</sup>	FXWP01000029.1
<i>Kosakonia quasisacchari</i> WCHEs120001 <sup>T</sup>	MK567956.1
<i>Kosakonia radicincitans</i> LMG 23767 <sup>T</sup>	CP018016.1
<i>Kosakonia sacchari</i> LMG 26783 <sup>T</sup>	CP007215.1
<i>Leclercia adecarboxylata</i> KY2	JWJV01000013.1
<i>Leclercia adecarboxylata</i> NBRC 102595 <sup>T</sup>	BCNP01000062.1
<i>Pantoea agglomerans</i> NCTC 9381 <sup>T</sup>	AJ251466.1
<i>Pseudoscherichia vulneris</i> NBRC 102420 <sup>T</sup>	BBMZ01000044.1
<i>Xenorhabdus nematophila</i> ATCC 19061 <sup>T</sup>	AY278674.1

**Table S2.** The GenBank/EMBL/DDBJ accession numbers for *atpD*, *gyrB*, *infB* and *rpoB* gene sequences used in this study.

Strains	<i>atpD</i>	<i>gyrB</i>	<i>infB</i>	<i>rpoB</i>
<i>Citrobacter amalonaticus</i> strain LMG 7873 <sup>T</sup>	JX424962.1	JX425091.1	JX425221.1	JX425347.1
<i>Citrobacter freundii</i> strain LMG 3246 <sup>T</sup>	JX424960.1	JX425089.1	JX425219.1	JX425345.1
<i>Citrobacter koseri</i> strain LMG 5519 <sup>T</sup>	JX424961.1	JX425090.1	JX425220.1	JX425346.1
<i>Citrobacter youngae</i> strain LMG 3252 <sup>T</sup>	JX424963.2	JX425092.1	JX425222.1	JX425348.1
<i>Cronobacter condimentii</i> strain LMG 26250 <sup>T</sup>	JX424906.1	JX425036.1	JX425165.1	JX425292.1
<i>Cronobacter dublinensis</i> strain R-46538	JX424898.1	JX425028.1	JX425157.1	JX425284.1
<i>Cronobacter dublinensis</i> strain R-46539	JX424899.1	JX425029.1	JX425158.1	JX425285.1
<i>Cronobacter dublinensis</i> subsp. <i>dublinensis</i> LMG 23823 <sup>T</sup>	JX424895.1	JX425025.1	JX425154.1	JX425281.1
<i>Cronobacter dublinensis</i> subsp. <i>lactaridi</i> LMG 23825 <sup>T</sup>	JX424897.1	JX425027.1	JX425156.1	JX425283.1
<i>Cronobacter dublinensis</i> subsp. <i>lausannensis</i> LMG 23824 <sup>T</sup>	JX424896.1	JX425026.1	JX425155.1	JX425282.1
<i>Cronobacter helveticus</i> strain LMG 23732 <sup>T</sup>	JX424907.1	JX425037.1	JX425166.1	JX425293.1
<i>Cronobacter helveticus</i> strain LMG 23733	JX424908.1	JX425038.1	JX425167.1	JX425294.1
<i>Cronobacter malonaticus</i> LMG 23826 <sup>T</sup>	JX424900.1	JX425030.1	JX425159.1	JX425286.1
<i>Cronobacter malonaticus</i> strain R-46540	JX424901.1	JX425031.1	JX425160.1	JX425287.1
<i>Cronobacter malonaticus</i> strain R-46541	JX424902.1	JX425032.1	JX425161.1	JX425288.1
<i>Cronobacter muytjensii</i> strain R-46535 <sup>T</sup>	JX424892.1	JX425022.1	JX425151.1	JX425278.1
<i>Cronobacter muytjensii</i> strain R-46536	JX424893.1	JX425023.1	JX425152.1	JX425279.1
<i>Cronobacter muytjensii</i> strain R-46537	JX424894.1	JX425024.1	JX425153.1	JX425280.1
<i>Cronobacter pulveris</i> strain LMG 24057 <sup>T</sup>	JX424909.1	JX425039.1	JX425168.1	JX425295.1

<i>Cronobacter pulveris</i> strain LMG 24058 <sup>T</sup>	JX424910.1	JX425040.1	JX425169.1	JX425296.1
<i>Cronobacter pulveris</i> strain LMG 24059 <sup>T</sup>	JX424911.1	JX425041.1	JX425170.1	JX425297.1
<i>Cronobacter sakazakii</i> strain LMG 5740 <sup>T</sup>	JX424889.1	JX425019.1	JX425148.1	JX425275.1
<i>Cronobacter sakazakii</i> strain R-46533	JX424890.1	JX425020.1	JX425149.1	JX425276.1
<i>Cronobacter sakazakii</i> strain R-46534	JX424891.1	JX425021.1	JX425150.1	JX425277.1
<i>Cronobacter turicensis</i> strain R-46543	JX424905.1	JX425035.1	JX425164.1	JX425291.1
<i>Cronobacter turicensis</i> z3032 strain LMG 23827 <sup>T</sup>	JX424904.1	JX425034.1	JX425163.1	JX425290.1
<i>Cronobacter universalis</i> strain R-46542 <sup>T</sup>	JX424903.1	JX425033.1	JX425162.1	JX425289.1
<i>Cronobacter zurichensis</i> strain LMG 23730 <sup>T</sup>	JX424912.1	JX425042.1	JX425171.1	JX425298.1
<i>Cronobacter zurichensis</i> strain LMG 23731	JX424913.1	JX425043.1	JX425172.1	JX425299.1
<i>Enterobacter aerogenes</i> strain LMG 2094 <sup>T</sup>	JX424969.1	JX425098.1	JX425228.1	JX425354.1
<i>Enterobacter aerogenes</i> strain LMG 2969	JX424970.1	JX425099.1	JX425229.1	JX425355.1
<i>Enterobacter aerogenes</i> strain LMG 2970	JX424971.1	JX425100.1	JX425230.1	JX425356.1
<i>Enterobacter asburiae</i> strain CCUG 23173	JX424860.1	JX424990.1	JX425119.1	JX425249.1
<i>Enterobacter asburiae</i> strain CCUG 29600	JX424861.1	JX424991.1	JX425120.1	JX425250.1
<i>Enterobacter asburiae</i> strain DSM 17506 <sup>T</sup>	JX424859.1	JX424989.1	JX425118.1	JX425248.1
<i>Enterobacter cancerogenus</i> strain CCM 2420	JX424851.1	JX424981.1	JX425110.1	JX425240.1
<i>Enterobacter cancerogenus</i> strain LMG 2693 <sup>T</sup>	JX424850.1	JX424980.1	JX425109.1	JX425239.1
<i>Enterobacter cancerogenus</i> strain NCPPB 2177	JX424852.1	JX424982.1	JX425111.1	JX425241.1
<i>Enterobacter cloacae</i> subsp. <i>cloacae</i> strain LMG 21186	JX424848.1	JX424978.1	JX425107.1	JX425237.1
<i>Enterobacter cloacae</i> subsp. <i>cloacae</i> strain LMG 2783 <sup>T</sup>	JX424847.1	JX424977.1	JX425106.1	JX425236.1
<i>Enterobacter cloacae</i> subsp. <i>dissolvens</i> strain LMG 2683 <sup>T</sup>	JX424849.1	JX424979.1	JX425108.1	JX425238.1
<i>Enterobacter hormaechei</i> strain CCUG 26643	JX424854.1	JX424984.1	JX425113.1	JX425243.1
<i>Enterobacter hormaechei</i> strain CCUG 27126 <sup>T</sup>	JX424853.1	JX424983.1	JX425112.1	JX425242.1
<i>Enterobacter kobei</i> strain CCUG 49023	JX494748.1	JX494750.1	JX494751.1	JX494753.1
<i>Enterobacter kobei</i> strain DSM 13645	JX494747.1	JX494749.1	JX494752.1	JX494754.1
<i>Enterobacter ludwigii</i> strain CCUG 51355	JX424856.1	JX424986.1	JX425115.1	JX425245.1
<i>Enterobacter ludwigii</i> strain CCUG 51356	JX424857.1	JX424987.1	JX425116.1	JX425246.1
<i>Enterobacter ludwigii</i> strain CCUG 51357	JX424858.1	JX424988.1	JX425117.1	JX425247.1
<i>Enterobacter ludwigii</i> strain LMG 23768 <sup>T</sup>	JX424855.1	JX424985.1	JX425114.1	JX425244.1
<i>Enterobacter mori</i> LMG 25706 <sup>T</sup>	JX424862.1	JX424992.1	JX425121.1	JX425251.1
<i>Enterobacter mori</i> strain LMG 26284	JX424864.1	JX424994.1	JX425123.1	JX425253.1
<i>Enterobacter mori</i> strain LMG 26285	JX424863.1	JX424993.1	JX425122.1	JX425252.1
<i>Enterobacter soli</i> strain LMG 26282	JX424865.1	JX424995.1	JX425124.1	JX425254.1
<i>Enterobacter soli</i> strain LMG 26283	JX424866.1	JX424996.1	JX425125.1	JX425255.1
<i>Enterobacter</i> sp. strain FY-07	OM049817.1	OM049818.1	OM049819.1	OM049820.1
<i>Gibbsiella quercinecans</i> strain LMG 25500 <sup>T</sup>	JX424954.1	JX425084.1	JX425213.1	JX425340.1
<i>Gibbsiella quercinecans</i> strain LMG 25501	JX424955.1	JX425085.1	JX425214.1	JX425341.1
<i>Gibbsiella quercinecans</i> strain LMG 25502	JX424956.1	JX425086.1	JX425215.1	JX425342.1
<i>Gibbsiella quercinecans</i> strain N78 <sup>T</sup>	JX424957.1	GU562335.1	JX425216.1	GU562315.1
<i>Klebsiella oxytoca</i> strain LMG 3055 <sup>T</sup>	JX424964.1	JX425093.1	JX425223.1	JX425349.1

<i>Klebsiella pneumoniae</i> subsp. <i>ozaenae</i> strain LMG 3113 <sup>T</sup>	JX424965.1	JX425094.1	JX425224.1	JX425350.1
<i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i> strain LMG 2095 <sup>T</sup>	JX424966.1	JX425095.1	JX425225.1	JX425351.1
<i>Klebsiella pneumoniae</i> subsp. <i>rhinoscleromatis</i> strain LMG 3184 <sup>T</sup>	JX424967.1	JX425096.1	JX425226.1	JX425352.1
<i>Klebsiella singaporensis</i> strain LMG 23571 <sup>T</sup>	JX424968.1	JX425097.1	JX425227.1	JX425353.1
<i>Kluyvera ascorbata</i> strain LMG 7871 <sup>T</sup>	JX424974.1	JX425103.1	JX425233.1	JX425359.1
<i>Kluyvera cryocrescens</i> strain LMG 7859 <sup>T</sup>	JX424975.1	JX425104.1	JX425234.1	JX425360.1
<i>Kluyvera intermedia</i> strain LMG 2785 <sup>T</sup>	JX424976.1	JX425105.1	JX425235.1	JX425361.1
<i>Kosakonia arachidis</i> strain KCTC 22375 <sup>T</sup>	JX424888.1	JX425018.1	JX425147.1	JX425274.1
<i>Kosakonia cowanii</i> strain BCC 008	JX424883.1	JX425013.1	JX425142.1	EU629165
<i>Kosakonia cowanii</i> strain BCC 009	JX424884.1	JX425014.1	JX425143.1	EU629166
<i>Kosakonia cowanii</i> strain BCC 011	JX424885.1	JX425015.1	JX425144.1	EU629167
<i>Kosakonia cowanii</i> strain LMG 23569 <sup>T</sup>	JX424882.1	JX425012.1	JX425141.1	JX425271.1
<i>Kosakonia oryzae</i> strain LMG 24251 <sup>T</sup>	JX424886.1	JX425016.1	JX425145.1	JX425272.1
<i>Kosakonia oryzendophytica</i> strain LMG 26432 <sup>T</sup>	KP345915.1	KP345907.1	KP345911.1	KP345904.1
<i>Kosakonia oryziphila</i> strain LMG 26429 <sup>T</sup>	LN873150.1	LN873151.1	LN873152.1	LN873153.1
<i>Kosakonia pseudosacchari</i> strain JM-387 <sup>T</sup>	KP345914.1	KP345906.1	KP345910.1	KP345903.1
<i>Kosakonia quasisacchari</i> strain WCHes120001 <sup>T</sup>	MK613095.1	MK613096.1	MK613097.1	MK613098.1
<i>Kosakonia radiciniscitans</i> strain LMG 23767 <sup>T</sup>	JX424887.1	JX425017.1	JX425146.1	JX425273.1
<i>Kosakonia sacchari</i> strain LMG 26783 <sup>T</sup>	HG931156.1	HG931162.1	HG931168.1	JQ001786.1
<i>Kosakonia sacchari</i> strain LMG 26784	HG931157.1	HG931163.1	HG931169.1	JQ001788.1
<i>Kosakonia sacchari</i> strain LMG 26785	HG931158.1	HG931164.1	HG931170.1	JQ001789.1
<i>Kosakonia sacchari</i> strain LMG 26786	HG931159.1	HG931165.1	HG931171.1	JQ001787.1
<i>Kosakonia sacchari</i> strain LMG 26787	HG931160.1	HG931166.1	HG931172.1	JQ001790.1
<i>Leclercia adecarboxylata</i> strain LMG 2803 <sup>T</sup>	JX424867.1	JX424997.1	JX425126.1	JX425256.1
<i>Lelliottia amnigena</i> strain LMG 2784 <sup>T</sup>	JX424870.1	JX425000.1	JX425129.1	JX425259.1
<i>Lelliottia amnigena</i> strain LMG 3000	JX424871.1	JX425001.1	JX425130.1	JX425260.1
<i>Lelliottia amnigena</i> strain LMG 3004	JX424872.1	JX425002.1	JX425131.1	JX425261.1
<i>Lelliottia amnigena</i> strain LMG 3006	JX424873.1	JX425003.1	JX425132.1	JX425262.1
<i>Lelliottia nimipressuralis</i> strain LMG 10245 <sup>T</sup>	JX424868.1	JX424998.1	JX425127.1	JX425257.1
<i>Lelliottia nimipressuralis</i> strain NCPPB 440	JX424869.1	JX424999.1	JX425128.1	JX425258.1
<i>Mangrovibacter plantisponsor</i> strain LMG 24236	JX424958.1	JX425087.1	JX425217.1	JX425343.1
<i>Pluralibacter gergoviae</i> strain CCUG 21193	JX424875.1	JX425005.1	JX425134.1	JX425264.1
<i>Pluralibacter gergoviae</i> strain CCUG 29886	JX424876.1	JX425006.1	JX425135.1	JX425265.1
<i>Pluralibacter gergoviae</i> strain CCUG 53235	JX424877.1	JX425007.1	JX425136.1	JX425266.1
<i>Pluralibacter gergoviae</i> strain LMG 5739 <sup>T</sup>	JX424874.1	JX425004.1	JX425133.1	JX425263.1
<i>Pluralibacter pyrinus</i> strain KCTC 2586	JX424879.1	JX425009.1	JX425138.1	JX425268.1
<i>Pluralibacter pyrinus</i> strain KCTC 2588	JX424880.1	JX425010.1	JX425139.1	JX425269.1
<i>Pluralibacter pyrinus</i> strain KCTC 2590	JX424881.1	JX425011.1	JX425140.1	JX425270.1
<i>Pluralibacter pyrinus</i> strain LMG 22970 <sup>T</sup>	JX424878.1	JX425008.1	JX425137.1	JX425267.1
<i>Raoultella planticola</i> strain LMG 7870 <sup>T</sup>	JX424972.1	JX425101.1	JX425231.1	JX425357.1
<i>Raoultella terrigena</i> strain LMG 3222 <sup>T</sup>	JX424973.1	JX425102.1	JX425232.1	JX425358.1

<i>Serratia entomophila</i> strain ICMP 8760	JX424927.1	JX425057.1	JX425186.1	JX425313.1
<i>Serratia entomophila</i> strain ICMP 8764	JX424928.1	JX425058.1	JX425187.1	JX425314.1
<i>Serratia entomophila</i> strain ICMP 8767	JX424929.1	JX425059.1	JX425188.1	JX425315.1
<i>Serratia entomophila</i> strain LMG 8456 <sup>T</sup>	JX424926.1	JX425056.1	JX425185.1	JX425312.1
<i>Serratia ficaria</i> strain CCM 3419	JX424915.1	JX425045.1	JX425174.1	JX425301.1
<i>Serratia ficaria</i> strain CCM 3420	JX424916.1	JX425046.1	JX425175.1	JX425302.1
<i>Serratia ficaria</i> strain CCUG 20935	JX424917.1	JX425047.1	JX425176.1	JX425303.1
<i>Serratia ficaria</i> strain LMG 7881 <sup>T</sup>	JX424914.1	JX425044.1	JX425173.1	JX425300.1
<i>Serratia fonticola</i> strain CCM 3408	JX424919.1	JX425049.1	JX425178.1	JX425305.1
<i>Serratia fonticola</i> strain LMG 7882 <sup>T</sup>	JX424918.1	JX425048.1	JX425177.1	JX425304.1
<i>Serratia glossinae</i> DSM 22080 strain CCUG 57457 <sup>T</sup>	JX424948.1	JX425078.1	JX425207.1	JX425334.1
<i>Serratia glossinae</i> strain CCUG 31137	JX424920.1	JX425050.1	JX425179.1	JX425306.1
<i>Serratia grimesii</i> strain CCM 2718	JX424922.1	JX425052.1	JX425181.1	JX425308.1
<i>Serratia grimesii</i> strain LMG 7883 <sup>T</sup>	JX424921.1	JX425051.1	JX425180.1	JX425307.1
<i>Serratia liquefaciens</i> strain CCM 2716	JX424950.1	JX425080.1	JX425209.1	JX425336.1
<i>Serratia liquefaciens</i> strain DSM 30064	JX424951.1	JX425081.1	JX425210.1	JX425337.1
<i>Serratia liquefaciens</i> strain DSM 30066	JX424952.1	JX425082.1	JX425211.1	JX425338.1
<i>Serratia liquefaciens</i> strain LMG 7884 <sup>T</sup>	JX424949.1	JX425079.1	JX425208.1	JX425335.1
<i>Serratia marcescens</i> subsp. <i>marcescens</i> strain LMG 2792 <sup>T</sup>	JX424930.1	JX425060.1	JX425189.1	JX425316.1
<i>Serratia marcescens</i> subsp. <i>marcescens</i> strain LMG 3271	JX424931.1	JX425061.1	JX425190.1	JX425317.1
<i>Serratia marcescens</i> subsp. <i>sakuensis</i> strain CCM 7122 <sup>T</sup>	JX424932.1	JX425062.1	JX425191.1	JX425318.1
<i>Serratia nematodiphila</i> strain DSM 21420 <sup>T</sup>	JX424953.1	JX425083.1	JX425212.1	JX425339.1
<i>Serratia odorifera</i> strain CCUG 32567	JX424936.1	JX425066.1	JX425195.1	JX425322.1
<i>Serratia odorifera</i> strain CCUG 33344	JX424937.1	JX425067.1	JX425196.1	JX425323.1
<i>Serratia odorifera</i> strain LMG 25869	JX424938.1	JX425068.1	JX425197.1	JX425324.1
<i>Serratia odorifera</i> strain LMG 7885 <sup>T</sup>	JX424935.1	JX425065.1	JX425194.1	JX425321.1
<i>Serratia plymuthica</i> strain LMG 6823	JX424945.1	JX425075.1	JX425204.1	JX425331.1
<i>Serratia plymuthica</i> strain LMG 6825	JX424946.1	JX425076.1	JX425205.1	JX425332.1
<i>Serratia plymuthica</i> strain LMG 6827	JX424947.1	JX425077.1	JX425206.1	JX425333.1
<i>Serratia plymuthica</i> strain LMG 7886	JX424944.1	JX425074.1	JX425203.1	JX425330.1
<i>Serratia proteamaculans</i> strain CCUG 51551	JX424934.1	JX425064.1	JX425193.1	JX425320.1
<i>Serratia proteamaculans</i> strain LMG 8751 <sup>T</sup>	JX424933.1	JX425063.1	JX425192.1	JX425319.1
<i>Serratia quinivorans</i> strain CCM 4705	JX424924.1	JX425054.1	JX425183.1	JX425310.1
<i>Serratia quinivorans</i> strain CCM 4745	JX424925.1	JX425055.1	JX425184.1	JX425311.1
<i>Serratia quinivorans</i> strain LMG 7887 <sup>T</sup>	JX424923.1	JX425053.1	JX425182.1	JX425309.1
<i>Serratia rubidaea</i> strain LMG 5019 <sup>T</sup>	JX424939.1	JX425069.1	JX425198.1	JX425325.1
<i>Serratia rubidaea</i> strain LMG 7804	JX424940.1	JX425070.1	JX425199.1	JX425326.1
<i>Serratia rubidaea</i> strain LMG 7997	JX424941.1	JX425071.1	JX425200.1	JX425327.1
<i>Serratia rubidaea</i> strain LMG 7999	JX424942.1	JX425072.1	JX425201.1	JX425328.1
<i>Serratia ureilytica</i> strain LMG 28860 <sup>T</sup>	JX424943.1	JX425073.1	JX425202.1	JX425329.1

<i>Xenorhabdus nematophila</i> strain ATCC 19061 <sup>T</sup>	FN667742.1	FN667742.1	FN667742.1	FN667742.1
<i>Yokenella regensburgei</i> strain LMG 7872 <sup>T</sup>	JX424959.1	JX425088.1	JX425218.1	JX425344.1

Table S3. The GenBank/EMBL/DDBJ accession numbers for genome sequences used in this study.

Strains	Accession Number
<i>Kosakonia arachidis</i> KCTC 22375 <sup>T</sup>	GCA_900116535.1
<i>Kosakonia cowanii</i> LMG 23569 <sup>T</sup>	CP019445.1
<i>Kosakonia oryzae</i> LMG 24251 <sup>T</sup>	NZ_CP014007.2
<i>Kosakonia oryzendophytica</i> LMG 26432 <sup>T</sup>	GCA_900094925.1
<i>Kosakonia oryziphila</i> LMG 26429 <sup>T</sup>	GCA_900094795.1
<i>Kosakonia pseudosacchari</i> JM-387 <sup>T</sup>	GCA_900184035.1
<i>Kosakonia quasisacchari</i> strain WCHEs120001 <sup>T</sup>	GCA_004331415.1
<i>Kosakonia radicincitans</i> LMG 23767 <sup>T</sup>	CP018016.1
<i>Kosakonia sacchari</i> LMG 26783 <sup>T</sup>	CP007215.3

Supplementary Table S4. *atpD*, *gyrB* and *infB*, *rpoB* gene sequence similarities between strain FY-07 and type strains of *Kosakonia* and other phylogenetically related species.

Strains	Gene Sequence Similarity (%) with Strain FY-07			
	<i>atpD</i>	<i>gyrB</i>	<i>infB</i>	<i>rpoB</i>
<i>Kosakonia oryzendophytica</i> LMG 26432 <sup>T</sup>	95.02%	98.65%	99.19%	99.37%
<i>Kosakonia pseudosacchari</i> JM-387 <sup>T</sup>	92.21%	89.49%	89.92%	92.94%
<i>Kosakonia sacchari</i> LMG 2678 <sup>T</sup>	92.68%	88.95%	89.92%	91.68%
<i>Kosakonia quasisacchari</i> WCHEs120001 <sup>T</sup>	91.59%	88.81%	88.94%	93.25%
<i>Kosakonia radicincitans</i> LMG 23767 <sup>T</sup>	88.79%	89.08%	89.11%	93.88%
<i>Kosakonia oryzae</i> LMG 24251 <sup>T</sup>	89.25%	88.01%	88.46%	94.03%
<i>Kosakonia cowanii</i> LMG 23569 <sup>T</sup>	90.81%	89.76%	87.48%	90.89%
<i>Kosakonia arachidis</i> KCTC 22375 <sup>T</sup>	89.25%	86.39%	88.29%	92.94%
<i>Kosakonia oryziphila</i> LMG 26429 <sup>T</sup>	88.79%	87.74%	87.97%	91.99%
<i>Enterobacter ludwigii</i> LMG 23768 <sup>T</sup>	89.72%	86.52%	86.50%	92.46%
<i>Enterobacter asburiae</i> DSM 17506 <sup>T</sup>	89.72%	87.20%	84.23%	91.84%

Table S5. Pairwise similarities of concatenated partial *atpD*, *gyrB*, *infB* and *rpoB* gene sequences for type strains of the genus *Kosakonia*.

Strains	Gene Sequence Similarity (%) with Strain FY-07
	MLSA
<i>Kosakonia oryzendophytica</i> LMG 26432 <sup>T</sup>	98.07%
<i>Kosakonia pseudosacchari</i> JM-387 <sup>T</sup>	91.08%
<i>Kosakonia sacchari</i> LMG 26783 <sup>T</sup>	90.74%
<i>Kosakonia quasisacchari</i> WCHEs120001 <sup>T</sup>	90.59%
<i>Kosakonia radicincitans</i> LMG 23767 <sup>T</sup>	90.17%

<i>Kosakonia oryzae</i> LMG 24251 <sup>T</sup>	89.87%
<i>Kosakonia cowanii</i> LMG 23569 <sup>T</sup>	89.76%
<i>Kosakonia arachidis</i> KCTC 22375 <sup>T</sup>	89.11%
<i>Kosakonia oryziphila</i> LMG 26429 <sup>T</sup>	89.07%

**Table S6.** The difference of G+C content between FY-07 and type strains of the genus *Kosakonia*.

Strains	G+C Content Difference with Strain FY-07 (%)
<i>Kosakonia oryzendophytica</i> LMG 26432 <sup>T</sup>	0.11
<i>Kosakonia sacchari</i> LMG 26783 <sup>T</sup>	0.12
<i>Kosakonia pseudosacchari</i> JM-387 <sup>T</sup>	0.28
<i>Kosakonia oryzae</i> LMG 24251 <sup>T</sup>	0.39
<i>Kosakonia radicincitans</i> LMG 23767 <sup>T</sup>	0.06
<i>Kosakonia quasisacchari</i> WCHEs120001 <sup>T</sup>	0.28
<i>Kosakonia oryziphila</i> LMG 26429 <sup>T</sup>	0.87
<i>Kosakonia arachidis</i> KCTC 22375 <sup>T</sup>	1.08
<i>Kosakonia cowanii</i> LMG 23569 <sup>T</sup>	2.55