

Identification of A Depolymerase Specific for K64-serotype *Klebsiella pneumoniae*: Potential Applications in Capsular Typing and Treatment

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Supplementary Materials:

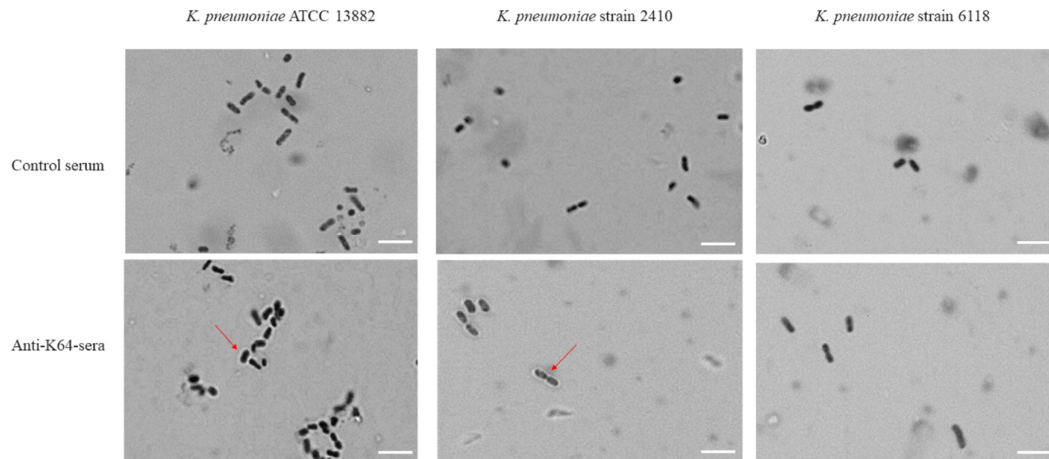


Figure S1. Serotyping by Quellung reaction tests. *K. pneumoniae* strain ATCC 13882, *K. pneumoniae* strain 2410 and *K. pneumoniae* K47 strain 6118 were incubated with K64-antisera or control-serum as described in Methods. Compared with the control, the positive results showed capsular swelling under the light microscope with an oil immersion lens (magnification, 100). Scale bar, 1 μ m.

Table S1. The location of IS elements in the *wcaJ* region of KL64⁺/ K64⁻ strains.

Isolate no.	Insertion Sequence	Gene	Position of the IS Element* (From the First Nucleotide of <i>wcaJ</i>)
6199	ISK _p n26	<i>wcaJ</i>	685bp
6821	ISK _p n26	<i>wcaJ</i>	685bp
6082	ISK _p n26	<i>wcaJ</i>	1018bp
6483	ISK _p n26	<i>wcaJ</i>	685bp
6938	ISK _p n26	<i>wcaJ</i>	552bp

6957	ISKpn26	<i>wcaJ</i>	34bp
6990	ISKpn26	<i>wcaJ</i>	685bp
8206	ISKpn26	<i>wcaJ</i>	409bp

*, IS element: IS5 family transposase ISKpn26.

Table S2. The primers used for cloning and mutant generation.

Primer name	Sequence (5'-3')
2410-F1-pSUMO3	CAGCAGCAGACGGGAGGATCCGGTGATGGCAGTGAAATAGG
2410-R1-pSUMO3	AGAGCGCTTTTGAAGCTAATTAGAAATCTCACCATAACCATGG
2410-F2-pSUMO3	CCATGGTTATGGTGAGATTCTAATTAGCTTCAAAAAGCGCTCT
2410-R2-pSUMO3	CGGATATATAGCAGATCGTACCGGTACCAATTGGGGATCTT
2410-F3-pSUMO3	AAGATCCCCAATTGGTACCGGTACGATCTGCTATATATCCG
2410-R3-pSUMO3	CTCGAGTGCGGCCGCAAGCTTCTTTTCACGGGAGCGGTTG
2410--F1	GGTGATGGCAGTGAAATAGG
2410--R1	TCTTTTCACGGGAGCGGTTG
2410- <i>wcaJ</i> -check-F	CTCCTGTAGACGTAGAACGA
2410- <i>wcaJ</i> -check-R	AGGCTTAAGGGAATCGATGG
pBAD33- <i>wcaJ</i> -f	GGTACCCGGGGATCTCTAGAATGAAAACCTTCACGCATCGTG
pBAD33- <i>wcaJ</i> -r	ATCCGCCAAAACAGCCAAGCTTTC AATATGCAGACTTATAATAAACC
pBAD33-check-f	CATAAGATTAGCGGATCCTACC
pBAD33-check-r	CTACTGCCGCCAGGCAAAT

Table S3. Activity spectrum of K64-ORF41 and results of serological typing.

Isolate no.	K64-ORF41	Quellung test	Agglutination
2410	+	+	+
2410 Δ <i>wcaJ</i>	-	-	-
2410 Δ <i>wcaJ</i> -pBAD33- <i>wcaJ</i>	+	+	+
6199	-	-	-
6199-pBAD33- <i>wcaJ</i>	+	+	+
6821	-	-	-
6821-pBAD33- <i>wcaJ</i>	+	+	+