

1 **SUPPLEMENTAL MATERIAL. TABLE S1.** PCR primers used in this study to detect VF-  
 2 encoding genes

Pathovar	Gene	Primers (5' to 3')	pb <sup>a</sup>	Reference
First set of screened VF-encoding genes				
STEC (EHEC)	<i>stx1</i>	GACTGCAAAGACGTATGTAGATTCG ATCTATCCCTCTGACATCAACTGC	150	(1)
	<i>stx2</i>	ATCCTATTCCCGGGAGTTTACG GCGTCATCGTATACACAGGAGC	584	(2)
EHEC EPEC	<i>eae</i>	GAACGGCAGAGGTTAATCTG CAATGAAGACGTTATAGCCC	203	(3)
EPEC	<i>bfpA</i>	AATGGTGCTTGCGCTTGCTGC GCCGCTTTATCCAACCTGGTA	330	(4)
ETEC	LT	GGCGACAGATTATACCGTGC GCGAGAGGAACACAAACCGG	581	(5)
	STa	TCCGTCAAACAACATGACGG ATAACATCCAGCACAGGCAG	244	(6)
	STb	GCCTATGCATCTACACAATC TGAGAAATGGACAATGTCCG	279	(6)
ETEC EAEC	<i>astA</i>	GCCATCAACACAGTATATCC GAGTGACGGCTTTGTAGTCC	106	(7)
NTEC	<i>cnf</i>	TTATATAGTCGTCAAGATGGA CACTAAGCTTTACAATATTGA	760	(8)
Second set of screened VF-encoding genes				
Various pathovars	<i>ehxA</i>	GCATCATCAAGCGTACGTTCC AATGAGCCAAGCTGGTTAAGCT	534	(9)
	<i>subAB</i>	GCAGATAAATACCCTTCACTTG ATCACCAGTCCACTCAGCC	232	(10)
	<i>papC</i>	GCAACAGCAACGCTGGTTGCATCAT AGAGAGAGCCACTCTTATACGGACA	328	(11)
	<i>cdtB</i>	GCCGCCACCTTGCCTTAC GCGCATCCGCCACTACTGAAA	321	(12)
	<i>espP</i>	AAACAGCAGGCACTTGAACG GGAGTCGTCAGTCAGTAGAT	1832	(13)
	<i>toxB</i>	ATACCTACCTGCTCTGGATTGA TTCTTACCTGATCTGATGCAGC	302	(14)
	<i>katP</i>	TTTAAAACGCTGGGATTTGC CTCCTGAGAGGCGTCAGTTC	1174	(15)
EAEC	<i>aggR</i>	GTATACACAAAAGAAGGAAGC ACAGAATCGTCAGCATCAGC	254	(7)

3 <sup>a</sup> amplicon size

**SUPPLEMENTAL MATERIAL. TABLE S2: VFs and CTX-M genes of 133 *E. coli* strains positive for at least *stx1*, *stx2*, *eae*, *astA*, *STa* or *cnf* genes**

Adhesin	Phylogroup	Serotype	VFs genes											ESBL			N° of isolates	F <sup>c</sup>	
			<i>papC</i>	<i>αH</i>	Toxins						Intimin	p-O157			CTX-M <sup>a</sup>				
					<i>cnf</i>	<i>stx1</i>	<i>stx2</i>	<i>STa</i>	<i>astA</i>	<i>cdtB</i>	<i>subAB</i>	<i>eae</i>	<i>espP</i>	<i>toxB</i>		<i>katP</i>			
None <sup>b</sup>	B1	<b>O26:H11</b>	-	-	-	-	-	-	-	-	-	-	eae β	-	-	-	no	1	
None	B1	neg	-	+	-	-	-	-	-	-	-	-	eae β	-	+	+	no	1	
None	B1	neg	-	-	+	-	-	-	-	-	+	-	eae θ	+	-	+	CTX-M-1	1	
None	B1	<b>O26:H11</b>	-	+	-	stx1 a	-	-	-	-	-	-	eae β	+	+	+	no	1	
None	B1	neg	-	+	-	stx1 a	-	-	-	-	-	-	eae θ	-	-	-	no	1	
None	B1	neg	-	+	-	stx1 a	stx2d	-	-	-	-	-	eae β	+	+	+	no	1	
None	B1	<b>O26:H11</b>	-	+	-	stx1 a	stx2a	-	-	-	-	-	eae β	-	-	+	no	1	
None	B1	neg	-	+	-	-	stx2a	-	-	+	+	-	-	+	-	-	no	1	
None	B2	neg	+	-	+	-	stx2b	-	-	-	-	-	-	-	-	-	no	1	
None	A	ND	-	-	-	-	-	+	-	-	-	-	+	+	-	no	1		
None	A	ND	-	-	+	-	-	+	-	-	-	-	-	-	-	no	1		
None	A	neg	-	+	-	-	-	-	-	-	-	eae ND	-	-	-	no	1		
None	C	ND	-	-	-	-	-	-	+	-	-	-	-	-	+	no	1		
None	E	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	no	1		
None	C=2, E=1	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	no	3		
None	B1	ND	-	-	-	-	-	-	+	+	-	-	-	-	+	no	1		
None	B1=3	ND	-	-	-	-	-	-	+	-	-	-	-	-	+	no	3		
None	B1	ND	-	-	-	-	-	-	+	-	-	-	-	-	+	no	1		
None	D	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	no	1		
None	C=2	ND	-	-	+	-	-	-	-	-	-	-	-	-	-	no	2		
None	B1	ND	-	-	+	-	-	-	-	-	-	-	-	-	+	no	1		
None	D	ND	-	-	+	-	-	-	-	-	-	-	-	-	-	CTX-M-9	1	48,2	

F5 + F41	A	ND	-	-	-	-	-	+	-	-	-	-	+	-	-	no	14	
F5 + F41	A	ND	-	-	-	-	-	+	-	-	-	-	-	-	-	no	1	
F5 + F41	A	ND	-	-	+	-	-	+	-	-	-	-	+	-	-	no	1	
F5 + F41	A	ND	+	-	-	-	-	+	-	-	-	-	-	-	-	no	1	
F5 + F41	A	ND	-	-	-	-	-	+	-	-	-	-	-	-	+	no	2	
F5 + F41	A	ND	-	-	-	-	-	+	+	-	-	-	-	-	+	CTX-M-9	1	
F5 + F41	A	ND	-	-	-	-	-	+	-	-	-	-	+	-	+	CTX-M-1	1	
F5 + F41	A	ND	-	-	-	-	-	+	+	-	-	-	-	-	-	no	1	
F5 + F41	B1	ND	-	-	-	-	-	+	-	-	-	-	-	-	-	no	1	
F5 + F41	B1	ND	-	-	-	-	-	+	+	-	-	-	-	-	-	CTX-M-1	1	
F5 + F41	C	ND	-	-	-	-	-	+	-	-	-	-	+	-	-	no	1	
F5 + F41	B1	ND	-	-	+	-	-	+	-	-	-	-	-	-	-	no	1	100,0
F17Ac	A	ND	-	-	+	-	-	-	-	-	-	-	-	-	+	no	1	
F17And	A	ND	-	-	+	-	-	-	+	-	-	-	-	-	+	CTX-M-9	1	
F17Aab	B1	ND	-	-	+	-	-	-	-	+	-	-	-	-	+	no	1	
F17Ab	B1	ND	-	-	+	-	-	-	-	-	-	-	-	-	-	no	1	
F17Ab	B1=3	ND	-	-	+	-	-	-	-	+	-	-	-	-	+	no	3	
F17Abc	B1	ND	-	-	+	-	-	-	-	+	-	-	-	-	-	no	1	
F17And	B1	ND	-	-	+	-	-	-	-	+	-	-	-	-	+	no	1	
F17Aab	B2	ND	-	-	+	-	-	-	-	-	-	-	-	-	-	no	1	
F17Aac	C	ND	-	-	+	-	-	-	-	-	-	-	+	-	-	no	1	
F17Ab	C	ND	-	-	+	-	-	-	-	+	-	-	-	-	-	no	1	
F17Ac	C	ND	-	-	+	-	-	-	-	-	-	-	-	+	no	1		
F17Ac	C	ND	-	-	+	-	-	-	-	-	-	-	-	+	CTX-M-1	1		
F17Aab	D	ND	-	-	+	-	-	-	-	+	-	-	-	-	-	no	1	
F17Aa	F	ND	-	-	+	-	-	-	+	+	-	-	-	-	-	no	1	
F17Aa	C	ND	-	-	+	-	-	-	+	-	-	-	-	-	-	no	1	
F17Aa	A	ND	-	-	-	-	-	-	+	-	-	-	-	-	+	no	1	
F17Aa	D	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	no	1	
F17Ac	F	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	no	1	
F17And	B2	ND	+	-	-	-	-	-	+	-	-	-	-	-	+	no	1	
F17Aa	A	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	no	1	29,7

CS31A	B1=1, B2=1, C=6, D=14, E=2, F=4 ND=2	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	no	30	
CS31A	C=1, D=2, ND=1	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	no	4	
CS31A	A=1, C=2, D=1	ND	+	-	-	-	-	-	+	-	-	-	-	-	-	no	4	
CS31A	C	ND	+	-	-	-	-	-	+	-	-	-	+	-	+	CTX-M-1	1	
CS31A	C	ND	+	-	-	-	-	-	+	-	-	-	+	-	-	no	1	
CS31A	D	ND	+	+	-	-	-	-	+	-	-	-	-	-	-	no	1	
CS31A	D=1, F=1	ND	-	-	+	-	-	-	+	-	-	-	-	-	-	no	2	
CS31A	C	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	no	1	
CS31A	D=3, F=4, ND=1	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	CTX-M-1=1, CTX-M-2=1, CTX-M-9=6	8	
CS31A	C	ND	-	-	-	-	-	-	+	-	-	-	+	-	-	CTX-M-1	1	
CS31A	C	ND	-	-	-	-	-	-	+	-	-	-	+	-	+	CTX-M-1	1	
CS31A	C	ND	-	-	-	-	-	-	+	-	-	-	-	-	-	CTX-M-9	1	
CS31A	D	ND	-	-	-	-	-	+	+	-	-	-	+	-	-	no	1	
CS31A	A	ND	-	-	+	-	-	-	-	-	-	-	-	-	-	CTX-M-9	1	
CS31A	A	neg	-	+	-	stx1a	stx2a	-	-	-	-	-	eae β	+	-	no	1	52,3

5 ND, Not determined; (-) PCR negative; (+) PCR positive; H, haemolysin; F17And, untypeable F17A variant.

6 <sup>a</sup>when more than one isolate by lane was illustrated, the number of strains belonging to each phylogroup or CTX-M group was noticed.

7 <sup>b</sup>“none” group corresponding to strains which did not have any CS31A, F17, F5 or F41 adhesin tested.

8 <sup>c</sup>Frequency expressed by adhesin group

9



22 KM496467 and KM496468). Seven F17A reference nucleotide sequences (GenBank  
23 accession numbers CP001162 (12), AF022140 (19), L14318.1 (20), AFDZ01000020.1,  
24 L77091.1, AF055309 (21), L43373.1) were included in the analysis. The positions of the  
25 targeted aligned nucleotide sequences obtained by using the Clustal Omega (22) from the  
26 PCR or reference nucleotide sequences were noticed after the forward slashes.

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