

**Additional file 1:** PCR primers and conditions used in this study, and sizes of PCR amplicons.

Target	Forward primer	Reverse primer	PCR conditions <sup>a</sup>	Amplicon (bp)	Ref
<i>afaC</i>	CGGCTTTTCTGCTGAACTGGCAGGC	CCGTCAGCCCCACGGCAGACC	94°C 30 s, 72°C 1 min	672	[1]
<i>afr1</i>	TACCGTACTGCGAAGACCT	CGTGCTGTTAATCGCCACTA	94°C 45 s, 60°C 45 s, 72°C 45 s	280	[2]
<i>afr2</i>	AAGTTAGGGGACGCCATTAC	CCAGGACTTATTCTGACCAG	94°C 45 s, 57°C 45 s, 72°C 45 s	518	[2]
<i>aggA</i>	ATGCATTACTTTGGGTTTAG	TCAACCTTGACACTTGCC	94°C 30 s, 50°C 30 s, 72°C 30 s	414	[3]
<i>bfpA</i>	ATTGAATCTGCAATGGTGC	ATAGCAGTCGATTTAGCAGCC	95°C 30 s, 58°C 30 s, 72°C 30 s	461	[3]
<i>cdt</i>	GAAARTAAATGGAAYAYAMATGTCCG	AATCWCCWRSAATCATCCAGTTA	94°C 1 min, 55°C 1 min, 72°C 1 min	466	[4]
<i>efal</i>	AAGGTGTTACAGAGATTA	TGAGGCGGCAGGATAGTT	94°C 30 s, 55°C 30 s, 72°C 30 s	268	[5]
<i>fimH</i>	TGCAGAACGGATAAGCCGTGG	GCAGTCACCTGCCCTCCGGTA	94°C 30 s, 60°C 30 s, 72°C 30 s	508	[6]
<i>focG</i>	CAGCACAGGCAGTGGATACGA	GAATGTCGCTGCCATTGCT	94°C 30 s, 63°C 30 s, 72°C 30 s	360	[6]
<i>iha</i>	CAGTTCAGTTTCGCATTCACC	GTATGGCTCTGATGCGATG	94°C 1 min, 52°C 1 min, 72°C 1.5 min	1305	[7]
<i>K88</i>	ATCGGTGGTAGTACTACTGC	AGAACCTGCGACGTCAACAAGA	94°C 30 s, 60°C 30 s, 72°C 45 s	595	[8]
<i>K99</i>	TGCGACTACCAATGCTTCTG	TATCCACCATTAGACGGAGC	94°C 30 s, 60°C 30 s, 72°C 30 s	450	[8]
<i>ldaH</i>	ATGAATAACATGAAAGTAATTCG	TCATTGCACAGTAACCGTAAC	95°C 30 s, 58°C 30 s, 72°C 1 min	807	This study
<i>lpfD<sub>0113</sub></i>	GAACTGTAGATGGGTAC	AGCAGGCATAACGCAAG	94°C 1 min, 48°C 50 s, 72°C 1 min	798	[9]
<i>nleB1</i>	GGTGTGCTGGTAGATGGA	CAGGGTATGATTCTTGTATTATG	94°C 30 s, 53°C 30 s, 72°C 30 s	175	[9]
<i>papA</i>	GTTATTGCCGGTGCGGTA	AATTCGCAACTGCTGAGA	94°C 30 s, 55°C 30 s, 72°C 30 s	530	[10]
<i>ralG</i>	CGTCACCTCTGGAGTGGC	GGAAGCACCGATGCCAGC	94°C 30 s, 60°C 30 s, 72°C 30 s	267	This study
<i>saa</i>	CGTGATGAACAGGCTATTGC	ATGGACATGCCTGTGGCAAC	94°C 30 s, 60°C 30 s, 72°C 30 s	119	[11]
<i>sfa/focDE</i>	CTCCGGAGAACTGGGTGCATCTTAC	CGGAGGAGTAATTACAAACCTGGCA	94°C 30 s, 63°C 30 s, 72°C 30 s	410	[12]

<sup>a</sup> 30 cycles. Plus an initial denaturation of 95°C for 10 min and final extension at 72°C for 5 min.

<sup>b</sup> M = AC, R = AG, S = GC, W = AT, Y = CT

## References

1. Le Bouguéne C, Lalioui L, du Merle L, Jouve M, Courcoux P, Bouzari S, Selvarangan R, Nowicki BJ, Germani Y, Andremont A, Gounon P, Garcia MI.: **Characterization of AfaE adhesins produced by extraintestinal and intestinal human *Escherichia coli* isolates: PCR assays for detection of Afa adhesins that do or do not recognize Dr blood group antigens.** *J Clin Microbiol* 2001, **39**:1738-1745.
2. Dow MA, Toth I, Alexa P, Davies M, Malik A, Oswald E, Nagy B: **Predominance of *afv2* and *ral* fimbrial genes related to those encoding the K88 and CS31A fimbrial adhesins in enteropathogenic *Escherichia coli* isolates from rabbits with postweaning diarrhea in Central Europe.** *J Clin Microbiol* 2005, **43**:1366-1371.
3. Robins-Browne RM, Bordun A-M, Tauschek M, Bennett-Wood V, Russell J, Oppedisano F, Lister NA, Bettelheim KA, Fairley CK, Sinclair MI, Hellard ME: **Atypical enteropathogenic *Escherichia coli*: a leading cause of community-acquired gastroenteritis in Melbourne, Australia.** *Emerg Infect Dis* 2004, **10**:1797-1805.
4. Toth I, Hérault F, Beutin L, Oswald E: **Production of cytolethal distending toxins by pathogenic *Escherichia coli* strains isolated from human and animal sources: establishment of the existence of a new *cdt* variant (Type IV).** *J Clin Microbiol* 2003, **41**:4285-4291.
5. Nicholls L, Grant TH, Robins-Browne RM: **Identification of a novel locus that is required for in vitro adhesion of a clinical isolate of enterohaemorrhagic *Escherichia coli* to epithelial cells.** *Mol Microbiol* 2000, **35**:275-288.
6. Johnson JR, Stell AL: **Extended virulence genotypes of *Escherichia coli* strains from patients with urosepsis in relation to phylogeny and host compromise.** *J Infect Dis* 2000, **181**:261-272.
7. Toma C, Martinez EE, Song T, Miliwebsky E, Chinen I, Iyoda S, Iwanaga M, Rivas M: **Distribution of putative adhesins in different seropathotypes of Shiga toxin-producing *Escherichia coli*.** *J Clin Microbiol* 2004, **42**:4937-4946.
8. Korczak B, Frey J, Schrenzel J, Pluschke G, Pfister R, Ehrlich R, Kuhnert P: **Use of diagnostic microarrays for determination of virulence gene patterns of *Escherichia coli* K1, a major cause of neonatal meningitis.** *J Clin Microbiol* 2005, **43**:1024-1031.
9. Doughty S, Sloan J, Bennett-Wood V, Robertson M, Robins-Browne RM, Hartland EL: **Identification of a novel fimbrial gene cluster related to long polar fimbriae in locus of enterocyte effacement-negative strains of enterohemorrhagic *Escherichia coli*.** *Infect Immun* 2002, **70**:6761-6769.
10. Kuhnert P, Hacker J, Muhldorfer I, Burnens AP, Nicolet J, Frey J: **Detection system for *Escherichia coli*-specific virulence genes: absence of virulence determinants in B and C strains.** *Appl Environ Microbiol* 1997, **63**:703-709.
11. Paton AW, Paton JC: **Direct detection and characterization of Shiga toxigenic *Escherichia coli* by multiplex PCR for *stx1*, *stx2*, *eae*, *ehxA*, and *saa*.** *J Clin Microbiol* 2002, **40**:271-274.
12. Le Bouguéne C, Archambaud M, Labigne A: **Rapid and specific detection of the *pap*, *afa*, and *sfa* adhesin-encoding operons in uropathogenic *Escherichia coli* strains by polymerase chain reaction.** *J Clin Microbiol* 1992, **30**:1189-1193.