

Colonic mucosa-associated Diffusely-Adherent *afaC*+ *Escherichia coli* expressing *lpfA* and *pks* are increased in inflammatory bowel disease and colon cancer. Maelle Prorok-Hamon, Melissa K. Friswell, Abdullah Alswied, Fei Song, Carol L. Roberts, Paul Flanagan, Paul Knight, Caroline Codling, Julian R. Marchesi, Craig Winstanley, Neil Hall, Jonathan M. Rhodes and Barry J. Campbell.

Supplementary file S1

Table S1(A) - Oligonucleotide primers used for RT-PCR and amplicon sizes

Gene	Oligonucleotide sequence (5'-3')	Amplicon size (bp)	Reference or Genbank Accession N ^o .
<i>afaC</i>	fp: CGGCTTTTCTGCTGAACTGGCAGGC rp: CCGTCAGCCCCACGGCAGACC	672	25
<i>dsbA</i>	fp: CTGCCGGAAGGCGTGAAC rp: GCTGTTCCACGCCGCGTC	237	18
<i>fimA</i>	fp: GCTGAATGATTGCGATACCA rp: AGCACCGGTTGCAAATAAC	255	16
<i>fimC</i>	fp: AAAAACGTCAATGTAAGGAAATCG rp: GCACCATAATCATTATTGTTCCGG	682	FJ866045
<i>fimH</i>	fp: TGCAGAACGGATAAGCCGTGG rp: GCAGTCACCTGCCCTCCGGTA	508	5
<i>fliC</i>	fp: ATGGCACAAGTCATTAAT rp: TTAACCCTGCAGTAGAGA	Full gene 1497bp K12	a
<i>htrA</i>	fp: TTCCAGCAGTTCTTCGGTGA rp: ATCAGTTCGCCGTTTCAGGTT	530	M36536
<i>lpfA_{Shigella}</i>	fp: AGGCGGTGCATTCACTCTGGCATCT rp: CCGCGTCGATAGCGGTATAGGCAGA	448	NC_004337
<i>lpfA_{LF82}</i>	fp: CTGAAAACCTGCGATATCTCC rp: GGCCTTCTTTCAGACGGTA	199	19
<i>ompC</i>	fp: GCGCCGACATCAACGTATTT rp: GCCAACAAGCGCAGAACTT	141	b
<i>papC</i>	fp: GACGGCTGTACTGCAGGGTGTGGCG rp: ATATCCTTTCTGCAGGGATGCAATA	328	5
<i>pks</i>	fp: AGCCGTATCCTGCTCAAAAC rp: TCGGTATGTCCGGTTAAAGC	1413	22

^a Subramanian S *et al.* (2008). Characterization of epithelial IL-8 response to inflammatory bowel disease mucosal *E. coli* and its inhibition by mesalamine. *Inflamm. Bowel Dis.* 14: 162–175

^b Balaji B *et al.* (2005). Timing of induction of osmotically controlled genes in *Salmonella enterica* Serovar Typhimurium, determined with quantitative real-time reverse transcription-PCR. *Appl. Environ. Microbiol.* 71: 8273-83

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Methods S1(A): PCR amplification conditions

E. coli, grown overnight on LB agar, were re-suspended in 100µL sterile water, boiled for 5 min and centrifuged (13,000 g, 10 min). Aliquots of supernatant (2µL) were used as amplification template in 50µL reactions containing 45µl 1.1X ReddyMixTM PCR Mastermix (Thermofisher; Loughborough, UK) with 300nM of forward and reverse.

All amplifications were performed in a thermal cycler (Hybaid Omnigene; Middlesex, UK) and carried out using conditions described within references listed in Table S1 or as follows:

afaC - amplification of was carried out over 25 cycles (94°C for 1 min, 65°C for 1 min and 72°C for 2 min).

htrA - amplification was carried out over 35 cycles (95°C for 1 min, 55°C for 1 min, and 72°C for 2 min).

dsbA - additional MgCl₂ was added to a final concentration of 3.4 mM.

lpfA_{Shigella} - amplification over 35 cycles (94°C for 1 min, 60°C for 1 min, and 72°C for 1 min).

All PCR-generated cDNA products were applied to 2% (wt/vol) agarose gel containing 1:10K Gelred nucleic acid gel stain and electrophoresed for ~1 h at 100V.

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Table S1(B): Oligonucleotide primers and probes used for qPCR

Gene	Human Universal Probe Library Set (Roche)	Oligonucleotide sequence (5'-3')
beta-Actin	#64	fp: CCAACCGCGAGAAGATGA rp: CCAGAGGCGTACAGGGATAG
VEGF-A	#29	fp: CCTTGCTGCTCTACCTCCAC rp: CCACTTCGTGATGATTCTGC