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Supporting information for article:

Structural and adhesive properties of the long polar fimbriae protein LpfD from adherent-invasive *Escherichia coli*

Fanny Coppens, Jegan Iyyathurai, Ségolène Ruer, Antonella Fioravanti, Joemar Taganna, Lars Vereecke, Henri De Greve and Han Remaut

Supplementary Figures

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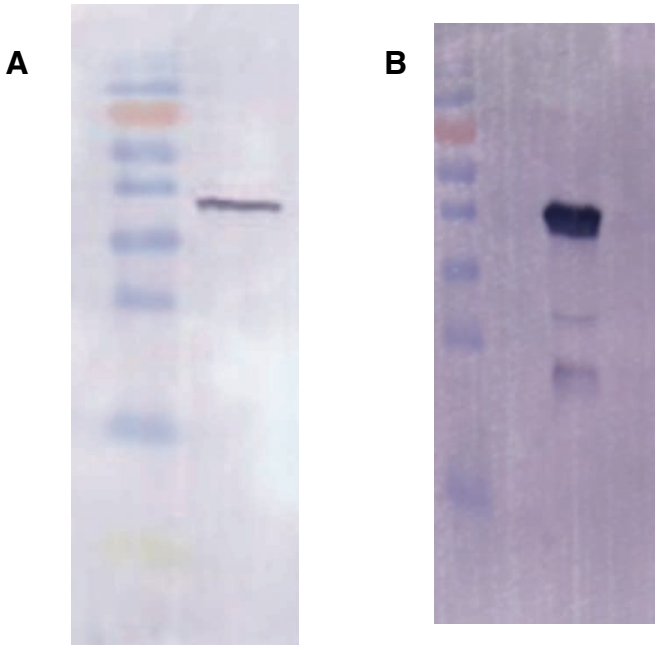
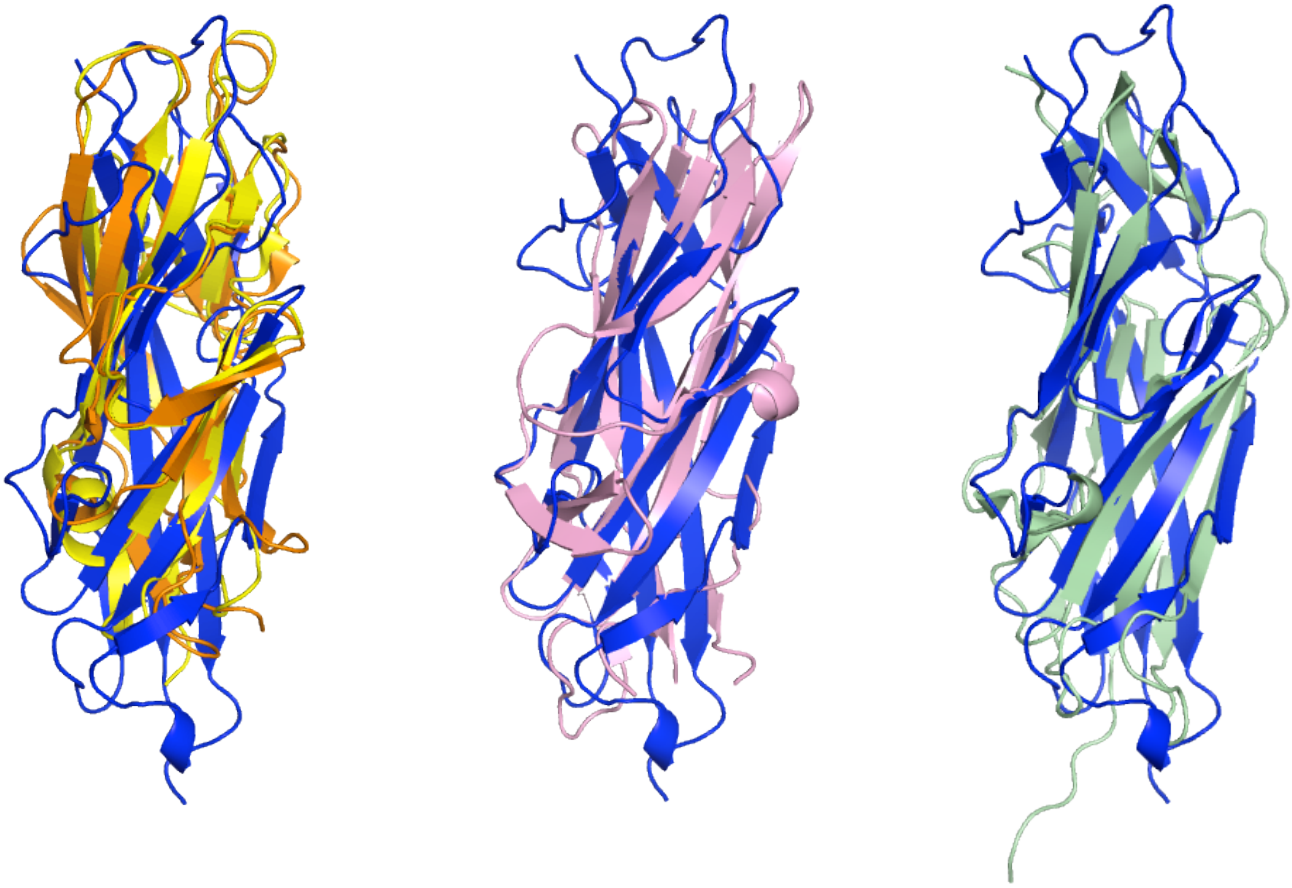
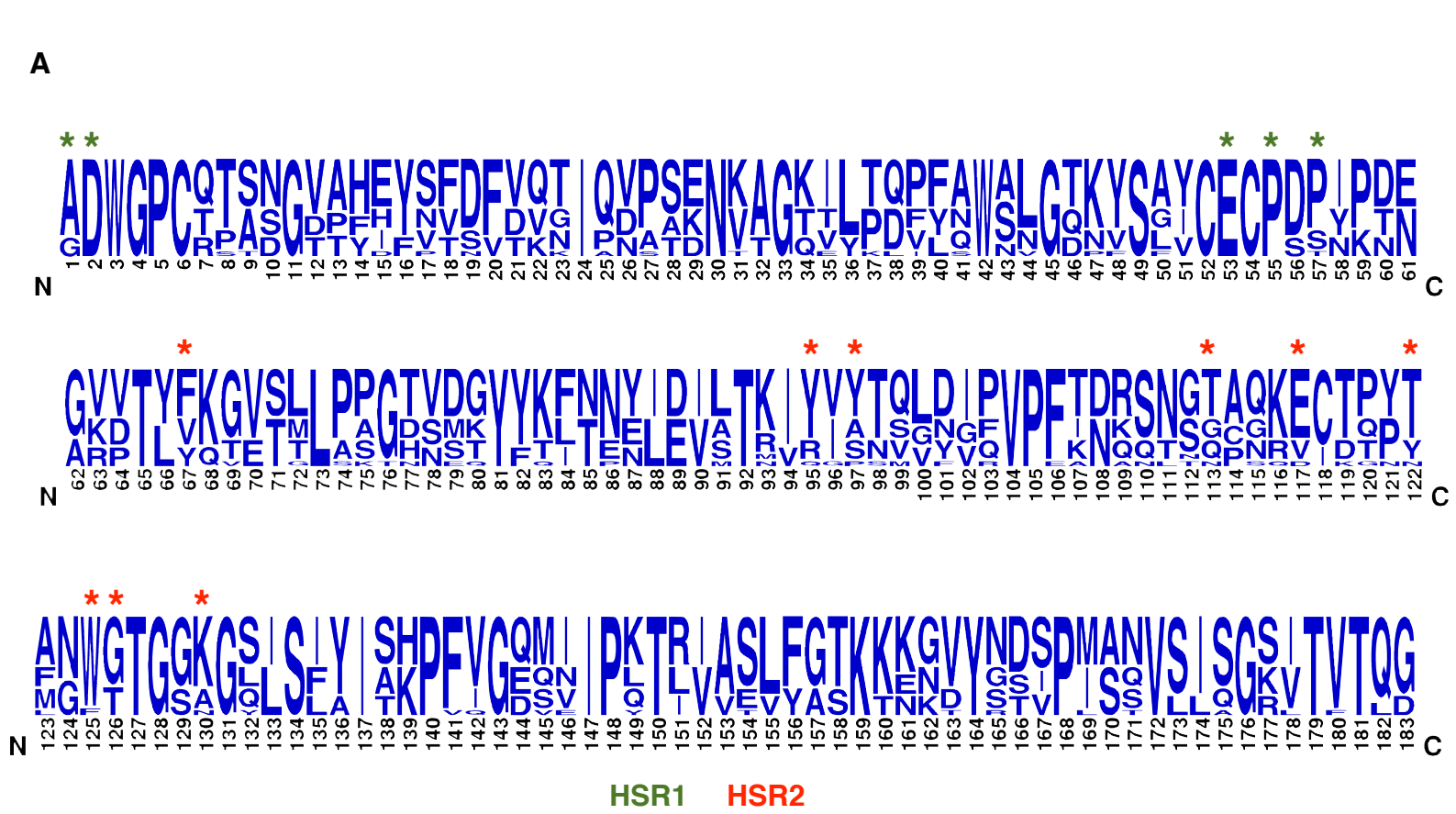
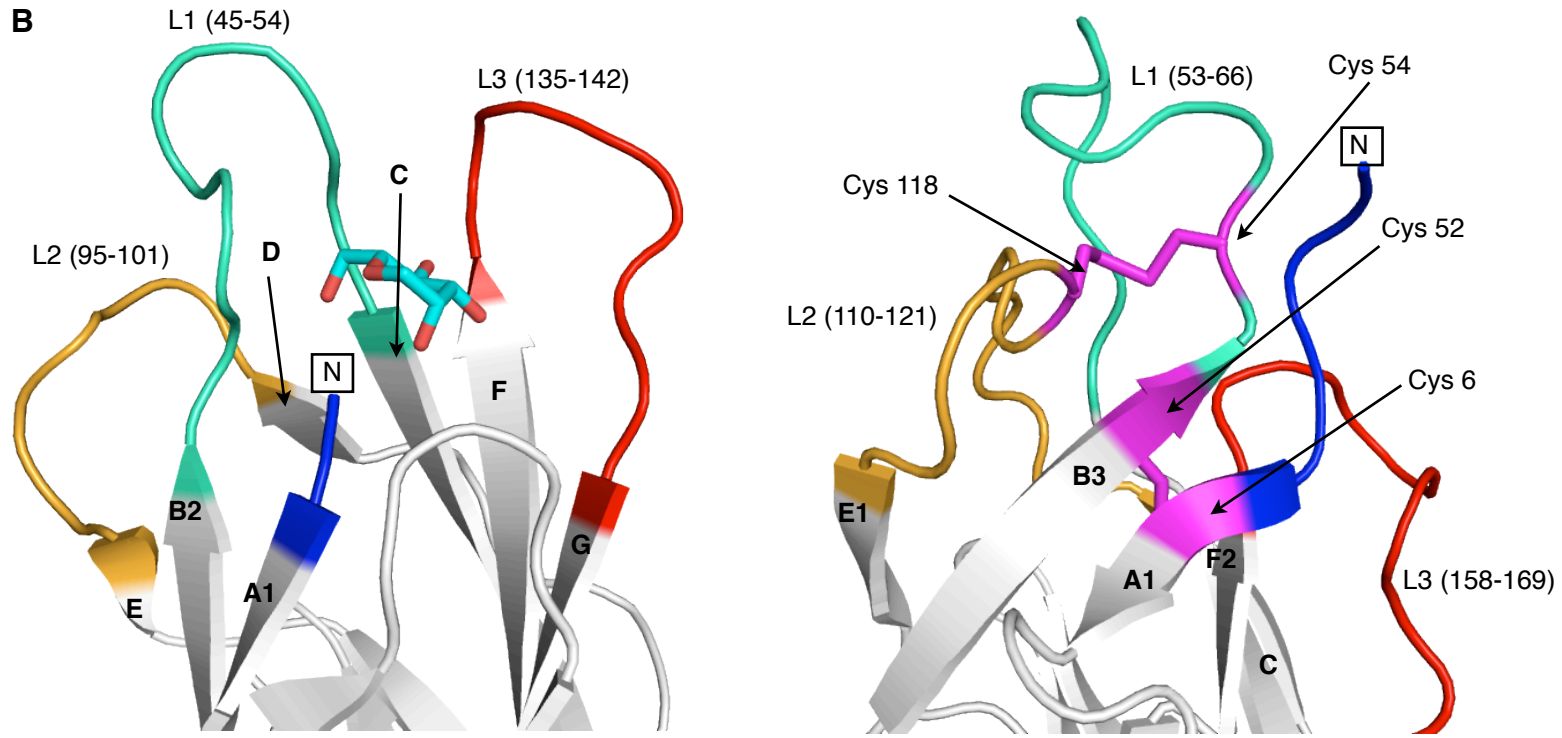


Supplementary Figure 1: Side by side comparison of the expression yields of $LpfD_{ANte}$ (**A**) and $LpfD_{ENte}$ (**B**) by anti-His Western Blots detecting recombinantly expressed LpfD in the periplasmic extract.

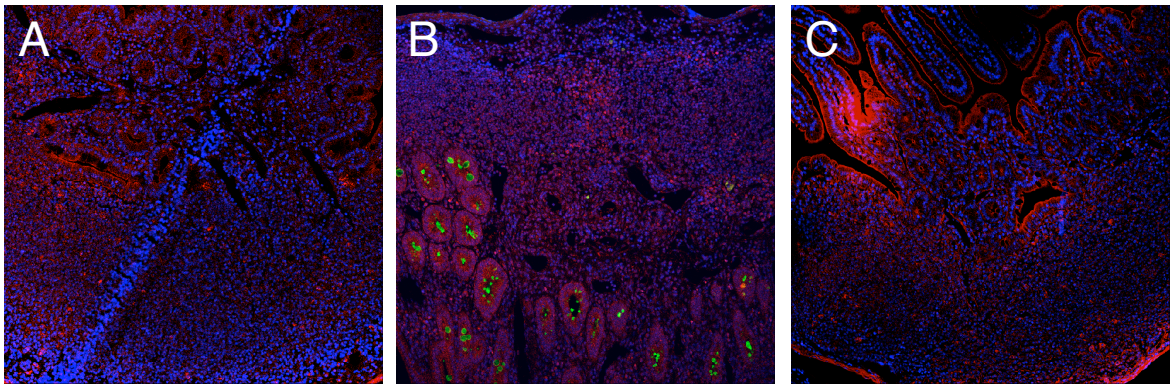


Supplementary Figure 2: Structural comparison of the lectin domains of LpfD (blue) with FimH in high (yellow; “elongated”, PDB: 2VCO) and low (orange; “compressed”, PDB: 3JWN) affinity conformation, GafD (pink; PDB: 1ZK5), MrkD (light green; PDB: 3U4K).





Supplementary Figure 3: **A**: Sequence logo of the first 183 N-terminal residues of LpfD, with indication of the residues making up HSR1 and HSR2. **B**: Comparison of the D-mannose binding pocket of FimH (left) and the corresponding loops in $LpfD_{ENte}$ colored equivalently. Boxed N is the N-terminus, bold indicates the β-strands, loops L1, L2 and L3 are indicated with their residue range and the Cys forming the two S-bridges in LpfD are in magenta.



Supplementary Figure 4: Fluorescence microscopy experiment on murine small intestine. Sections were incubated with A: $LpfD_{ENte}$ mutant Q113A, B: $LpfD_{ENte}$ mutant E53A and C: $LpfD_{ENte}$ mutant E53K. Blue is Hoechst stain of DNA, green is Muc2 antibody, red is $LpfD_{ENte}$ labelled with DyLight 650.