

S2 Table: Aligned sequences of VHHs binding pathogenic *E. coli* virulence factors. Complementarity determining regions (CDR1, 2 and 3) are highlighted and appear in order from left to right.

Anti-Fla:

JUV-B11: SGGGLAQGGSLRLSCTST**GHT-LDDYA**IGWFRQAPGKERERVACA**SASGI-TTN**YADSVKGRFTISRDKAKNMVYLQMNLSQPEDTAVYYC**AA--TPYYGDV**CVRAAFESRGQGTQVTVSS
 JUV-C4: TGGGLVQAGGSLRLSCVAS**GRA-VSSFAM**GWFRQIPGREQRDFVAFI**GDDYGLTTY**YANSVKGRFTISRNSAENTLYLQMNLSLEFEDAAYVFC**AA--RDAYS**GTTNPSAYDYGQGTQVTVSS
 JUV-E8: SGGGLVQAGGSLRLSCAAS**GRT-SSTYTM**GWFRQAPGKEREFAAAI**RSSGS-GTY**YADSVKGRFTISRDKAKNTVYLQMNLSKPEDTAVYYC**AA--RGNPI**YSVYDVRTYDLWGQGTQVTVSS
 JUV-G8: TGGGLVQAGGSLRLSCAAS**GSI-VSFNAM**VYREAPGKREWVAQI**TPSSK--TM**YKDSVKGRFTISSDNAKNMVYLQMNLSKPEDTAVYYC**NGD-----RGVA**WGPQTQVIVSS
 JUV-H5: SGGGLVQAGGSLRLSCAAS**EMS-FSIRKRM**GWFRQAPGKREWVAQI**TPAGS--TNY**AEYTKGRFTISRDNAKNTVYLQMNLSKPEDTAVYYC**NT-----LPGA**WAGQGTQVIVSL
 JWU-F3: SGGGLVQAGGSLRLS**LS-D-FRLTN**MAWYRQTPGSERDVVAQI**SPNGI--TS**YHSAVQDRFNISRDNARKTLFLQMNLSKPEDSGVYYC**NI-----RWG**SLEWQGTQVTVSP
 JWU-H4: TGGGLVQAGGSLRLSCAAS**GFS-LAYVG**WFRQAPGKEREALACI**SRFGD-DTY**YADSAKGRFTVSRDNAKNTVYLEMNLKPEDTGVYYC**CAAGWVV**TDESCSGSDAYNWRGQGTQVTVSS
 JXE-B1: TGGGLVQAGDLSRLSCAAS**SGRNFSNYA**TGWFRQAPGKEQEFVASI**SRSGR-STY**YADSAKGRFTISRDNARNTVYLQMNLSKPEDTADYYC**AAHETQ**WPNGLGWVRCGYDLWGQGTQVTVSS

Anti-intimin:

JWS-H4: SGGGLVQAGGSLRLSCTT**ASIFSGYR**MGWFRQAPGKQREFVASI**ADG-QNTF**YADSVKGRFTISRDNAKNTVYLQMNLSKPEDTAVYYC**KS-----WG**YTDWGQGTQVTVSS
 JWT-C1: S-GGLVQAGGSLRLSCAAS**GFTLANSA**IGWFRQAPGKREAVSICI**STAGTNTN**YASVVKGRFTIARDNAKNMAYLQMDNLKSGDTGVYEC**AA-----G**WSIDCSGYILPAADVWGQGTQVTVSS
 JWU-D8: TGGGLVQAGGSLRLSCAAS**GFYFSGY**MHWVRQVQGGQGLKQVSGI**NIDDTKSS**YDTSVKGRFTISRDNKTNTLYLQMDLSQPEDTGVYYC**AR-----D**RRAGQISGGYDPDYRGQGTQVTVSS
 JWU-G8: SGGGLVQAGGSLRLSCAAS**GFYFAGY**MHWVRQVQGGLEWVSGI**DLGSTM**LNRYDSVKGRFISRDNAKNTVYLQMHSLKPEDTALYFC**AR-----D**RRAGATSGGYDPDYRGQGTQVTVSS
 JXN-E2: T-GGLVPPGGSLQLSCTSS**GFLLDYL**GVAVFRQAPGNEREVGSICI**YTGDNIA**YASSMKGRATISRDKDANTVLEMLNGLKPEDTAVYYC**AAHRSATT**YADGKRYCPLENEYDYWGQGIQVTVSS

Anti-Tir:

JVB-C6: TGGGLVQAGGSLRLSCAAS**GFISITEN**AMGWARQVPGKLEWVSLV-----**YSGGNTY**YAESIEGRFTISRDNAKNTVYLRMTSLKPEDTGVYYC**AA-----R**EAVRVAGPPADVWGQGTQVTVSS
 JVB-G4: SGGGLVEAGGSLRLSCAAS**GRASGDH**LGWFGDGLAWFRQAPGKEREYVAAV**GHSQD**TTYSDSVKGRFTISRDNAKSMGYLQMDNLRPDDTGIYYC**AL-----D**LHLGQPGYDYGQGTQVIVSS
 JVB-G8: TGGGLVQAGGSLRLSCVAS**GFTFNDV**LWFRQAPGKREGVAVSI-----**SPAFGNT**YADSVKGRFTITSDSAKQVCLQMNLSKEDTAVYYC**AAADPT**VNFGPVLRAENYRWRGQGTQVTVSS
 JVC-C6: SGGGLVQAGGSLRLSCAAS**GFTFVDYA**TGWFRQAPGKEREVAVSI-----**SNGASGS**VVNSVKGRFTITSDNAKNTAYLQMDNLKPEDTAVYYC**AL-LGR**TGGHCTDPNEYSWGQGTQVTVSS
 JVC-D10: T-GGLVQAGGSLRLSCTV**SGRFGD**WAMAWFRQAPGKEREVSAI-----**GWSQD**TYSEPAKGRFTISRDNAKNTVWLRMTNLKSEDYAVYYC**AA-----A**TRAYADYDYGQGTQVTVSS
 JVC-E5: TGGGTVQAGGSLRLSCTAS**GFTFNDAA**MWFRQAPGKEREVAAI-----**NWDSANKY**YADSVKGRFTISRDNAKNTVYLEMTALKPEDTADYYC**AG--D**AKLGHVATSDVWRFRGQGTQVTVSS
 JVA-A1: S-GGSVEAGDLSRLSCAAS**GRGFGD**GLAWFRQAPGKEREYVAAV-----**GHSQD**TTYADSVKGRFTISRDNAKNMGYLQMDSLRPPDTGVYYC**AL-----D**LHLGQPGYDYGQGTQVTVSS
 JVA-C8: SGGGLVQAGGSLRLSCAAS**GFTFVDY**GLAWFRQAPGKEREVAVSI-----**SFSNRSQ**YADSVKGRFTISSDNAKNTVYLQMDNLKPEDTAVYYC**TR----I**DVGNCRDGGYRGQGTQVTVSS
 JVA-C9: TGGGLVQAGGSLRLSCVDS**GRTFNDNA**MWFRQAPGKEREVAAI-----**GVNGD**STYVNSVKGRFTISRDNAKNTLYLQMNLSQLEDYGVYYC**AA-----K**TRVTTKEYDYFRGQGTQVTVSS
 JVA-D4: TGGGLAQAGGSLRLSCTAS**GFTFADYA**IGWFRQAPGKEREVAVSI-----**SFSDNQY**SADSVKGRFTISKDNKNTVYLQMNLSKPEDTAVYYC**HL--I**DVGSNCRKGDGDFWGQGTQVTVSS
 JVA-F6: SGGGLVQAGDLSRLSCTV**SGRSF**SEAAWGWFRQAPGKERELMTSI-----**GNWGD**RTYADSVKGRFTISRDNAKNTVYLQMNGLTPNDTAVYYC**AA-----A**VRASKGYEYWGQGTQVTVSS
 JVA-D11: SGGGLVQAGGSLRLSCAAS**GFTFNDYA**KAWFRAPGKEREVAVSI-----**SSMGEST**FYADSVKGRFTISSDSAKNTVYLQMNLSKPEDTAVYYC**AAADPT**VKWGHVLRRENYDYWGQGTQVTVSS
 JVA-E10: SGGGLVQAGGSLRLSCVAS**GRTFSDYA**MWFRQAPGKEREVAAI-----**SWNGG**STYADSVKGRFTISRDNAKNTMYLQMNLSKEDTAVYYC**IS-E**GRGLRQVKTATDWEYWGQGTQVTVSP
 JVA-G1: SGGGLAQAGGSLKLSCVAS**GFTFADYA**IGWFRQAPGKEREVAVSI-----**SNSVG**STYSDSVKGRVFTISSDNVKTVYLQMNLSKPEDTAVYYC**AL--I**DHGMNCRNSNGIHYWGKGLTVTVSS

Anti-EspA:

JXF-D7: SGGGLVQAGGSLRLSCSAS**GFAL**EYYAVGWFRQAPGKEREVAVSI-----**SGSDG**SKEHAQVFKGRFTISLDKEKNTVDLTMNLSKPEDTAVYYC**AVA-G**PSDHQCGLMTWYHRWGQGTQVTVSS
 JYB-B1: TGGGLVQAGGSLRLSCAAS**GFSLGDYA**IGWFRQAPGKEREVAVSI-----**GSLGNTY**YPSDMKGRFTISRDAENAVYLEMNLKPEDTAVYYC**TS----G**GTFDAVVLGLSTYWGQGTQVTVSS
 JYB-B8: TGGGLVQAGGSLRLSCAAS**GFTFSTY**MWYWRQAPGKLEWVSTI-----**DTGGSD**TYADSVKGRFTISRDNVKNLYLQMDNLKPEDTALYYC**GS---S**RDIVIVTTLRDFDYWGQGTQVTVSS
 JYB-D1: TGGGLVQAGGSLRLSCAAS**GNTFSYTA**MWFRQAPGKEREVAVSI-----**SSGRG**PTRYADSVKGRFTISRDNLTNTVWLQMDNLKPEDTAVYYC**NT---L**KYSGESSYIAGDSWGQGTQVTVSS
 JYB-H4: SGGGLVQAGGSLRLSCAAS**GVTLE**YYAVGWFRQAPGKEREVAVSI-----**STSGAGT**YADSVKGRFTISKDNKNTVYLQMNLSKPEDTAVYYC**AA-R**DFTEVPIGGCEWEYDYGQGTQVTVSS
 JYB-H6: TGGGLVQAGGSLRLSCVAS**GFIL**DAYTIGWFRQAPGKEREVAVSI-----**NGSGF**STYADSVKGRFTISRDNARNTVWLQMNLSKPEDTAVYYC**AA--A**LGLLTPRESTPFDDWGQGTQVTVSS
 JYF-D8: SGGALVQAGGSLRLSCAAS**GINLD**YYAVGWFRQAPGKEREVAVSI-----**SHVDD**DRIYSDSVKGRFTISRDNARNTVYLQMNLSLEPEDTAVYYC**ATA-G**PSDYQCDLELNTYRWRGQGTQVTVSS
 JXF-H9: SGGGLAQAGGSLRLSCAAS**GFRL**EYYAVGWFRQAPGKEREVAVSI-----**SGSDG**STYNAEFAKGRFTISRDAKNTVYLLMNSLKPEDTAVYYC**AVA-G**PSDYQCDLGRWYHRWGQGTQVTVSS
 JXF-C4: SGGGLVQAGGSLRLSCVAS**GRTANT**FKYAMGWFRHNPGEDEHFEVGGI**SONG**DEAYFDDSVKGRFTISRDNAKNTMYLQMNLSKPEDTAAYYC**VAQ**RSSERLVGDMYSAMDSWGKGLTVTVST