
Nucleotide sequence of a gene encoding the *Borrelia burgdorferi* flagellin

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The genes encoding a major flagellar protein (1) from *B burgdorferi* strains B31 (type strain) and GeHo (isolated from skin biopsy by Dr. Pelz, Freiburg) were identified from a pUEX1 and λ gt11 expression library, respectively, by immunoscreening with a flagellin-specific monoclonal antibody. Each sequence has been obtained on both strands by a modified Sanger protocol (2). Fig.1 shows the primary nucleotide sequence of the *B. burgdorferi* B31 flagellin gene. Base changes found within the sequence of strain GeHo are indicated. The structural gene, 1008 bp in length, codes for a protein of 336 amino acids. The correct open reading frame was confirmed by N-terminal amino acid analysis of the purified flagellin (3).

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1 ATGATTATCA ATCATAATAC ATCAGCTATT AATGCTTCAA SAAATAATGG CATTAACGCT
61 GCTAATCTTA GTAAAACCTA AGAAAAGCTT TCTAGTGGT ACAGAATTA TCGAGCTTCT
121 GATGATGCTG CTGGCATGGG AGTTTCTGGT AAGATTAATG CTCAAATAAG AGGTTTGCTA
181 CAAGCTTCTA GAAATACTTC AAAGGCTATT AATTTTATTC AGACAACAGA AGGGAATTTA
241 AATGAAGTAG AAAAAGTCTT AGTAAGAATG AAGGAATGG CAGTTCATC AGGTAACGGC
301 ACATATTCAG ATGCAGACAG AGGTTCTATA CAAATTGAAA TAGAGCAACT TACAGACGAA
361 ATTAATGAAA TTGCTGATEA AGCTCAATAT AACCAAAATG ACATGTTATC AAACAAATCT
421 GTTTCTCAAA ATGTAAGAAC AGCTGAAGAG ETTGGAATGC AGCCTGCAAA AATTAACACA
      G                               A
481 CCAGCATCAC TTTCAAGGTC TCAAGCCTCT TGGACTTTAA GAGTTCTATG TGGAGCAACC
541 CAAGATGAAG CTATTGCTGT AAATATTTAT GCAGCTAATG TTGCAAACTT TTTCTCTGGT
601 GAGGAGCTC AAACCTGCTA GGCTGCACCG GTTCAAGAGG GTTCTCAACA GGAAGGAGCT
661 CAACAGCCAG CACCTGCTAC AGCACCTTCT CAAGCGGGAG TTAATTETCC TGTTAATGTT
721 ACAACTACAG TTEATGETAA TACATCACTT GCTAAAATG AAAATGCTAT TAGAATGATA
      A                               G
781 AGTGATCAAA GGGCAAATTT AGGTGCTTTC CAAAATAGAC TTGAATCTAT AAAGAATAGT
841 ACTGAGTATG CAATTGAAAA TCTAAAAGCA TCTTATGCTC AAATAAAGA TCTACAAATG
901 ACAGATGAGG TTGTAGCAGC AACAACTAAT AGTATTTTAA CACAATCTGC AATGGCAATG
961 ATTGGCCAGG CTAATCAAGT TCCCAATAT GTTTTGTCAI TGCTTAGATA A

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References: (1) Barbour, A.G. et al. (1986) *Infect. Immun.* 52, 549-554. (2) Tabor, S. and Richardson, C.C. (1987) *Proc. Natl. Acad. Sci. USA* 84, 4767-4771 (3) Gäßmann, G.S. et al., *FEMS Lett.*, in press.