

Whole Genome Sequence link of *Vibrio cholerae* BB1 derived from N16961

https://www.kegg.jp/kegg-bin/show_organism?org=T00034

Chromosome I (2961149 bp)

GB: [AE003852](#)

Chromosome II (1072315)

GB: [AE003853](#)

Statistics Number of nucleotides: 4033464
 Number of protein genes: 3828
 Number of RNA genes: 122

Reference PMID: [10952301](#)

Vibrio cholerae BB1 was developed from the N16961 strain through the simultaneous deletion of four genomic islands (VPI-1, VPI-2, VSP-1, and VSP-2) and the TLC-CTX region, without introducing any antibiotic resistance markers. These deletions rendered the strain completely avirulent, as confirmed in a rabbit model. We also validated its compatibility with expression vector pBAD24 and cloning vectors pUC18 and pBR322. Growth studies were conducted in various media to assess its fitness. Full details of the strain's construction and characterization are available in Pant et al., *PNAS USA*, 2020 (117:23762–23773): <https://doi.org/10.1073/pnas.2006283117>