

Nucleotide sequence of a gene that encodes resistance to ethidium bromide from a transferable plasmid in *Staphylococcus aureus*

Masanori Sasatsu, Katsuyuki Shima, Yoshiyuki Shibata and Megumi Kono*

Department of Microbiology, Tokyo College of Pharmacy 1432-1 Horinouchi, Hachioji, Tokyo 192-03, Japan
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Several restriction maps of DNA fragments that contain the determinant for resistance to ethidium bromide (EB) from *Staphylococcus aureus* have been reported (1,2,3). A self-transmissible resistance plasmid pTZ20 was isolated from a clinical staphylococcal isolate L20A in Japan. A new EB-resistance gene (*ebr*) was detected on the plasmid pTZ20. The restriction map of the *ebr* gene was different from those of other EB-resistance determinants. The 0.6-kb DNA fragment containing *ebr* was cloned into *Escherichia coli* and sequenced. The nucleotide sequence contained an open reading frame (324 bp) encoding a protein with a molecular weight of 11,740 daltons. Promoter-like sequences and a Shine-Dalgarno sequence are indicated by solid lines and bold lettering, respectively.

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TCACGCTATGCCGACATTCGTCCTCCAAGTTTGTAGTTAAGGGTCTTCTCAACATCAATAAA
TTTTCTCGGCATAAATGCATGTTTACTGTAAAATGATACTGATACAAAATAAAAAATAAA
AGGATAGTTGCAAATGAAAAATACTTAGAATAAAATTAATAAAAATACGAAAATTAACAG
GAGTTAAAAATGCCCTTATATTTTAAATAATAGCCATAAGTACTGAAGTTATGGGAAGT
      M P Y I Y L I I A I S T E V I G S
GCATTTCTTAAATCTTCAGAAGGCTTTTCAAAATTTATACCATCCTTAGGAACAATAATT
A F L K S S E G F S K F I P S L G T I I
TCATTTGGAATTTGTTTCTATTTTTAAGTAAAACAATGCAACACCTACCACTAAATATA
S F G I C F Y F L S K T M Q H L P L N I
ACTTATGCAACTGGGGCGGACTAGGTTTAGTCTTAACAACCGTAGTCTCAATAATTATT
T Y A T W A G L G L V L T T V V S I I I
TTCAAAGAACAAATAAATCTAATAACTATAGTATCTATAGTTTTAATCATAGTCGGCGTA
F K E Q I N L I T I V S I V L I I V G V
GTTTCGTTAAACATTTTCGGAACATCGCATTAATTGCTTTTATCCAATTGCTTTATTGAC
V S L N I F G T S H *
GTTGAGCCTCGGAACCTTAACAATCCCAAACCTTGTCGAATGGTCGGCTTAATAG

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*To whom correspondence should be addressed

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