[C1-3]

Quorum Sensing Signal in *Burkholderia* sp.

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This study was conducted to screen the pathogenic bacteria to produce quorum sensing signals in 82 strains from both human and animal pathogenic bacteria. Signal molecules in quorum sensing were detected from *Klebsiella pneumoniae*, *Burkholderia* sp., *Listeria monocytogenes*, *Clostridium perfringens*, Enterotoxigenic *E. coli*, *Pasteurella multocida*, *Mannheimia haemolytica*, *Haemopillus parasuis*, *Haemopillus somnus*, and *Streptococcus suis*. Using *Vibrio harvey* BB886 reporter strain, the luminescence was also measured to confirm AI (autoinducer) secretion related to quorum sensing. *Burkholderia* sp. and *Mannheimia haemolytica* produced AI when cell growth was reached at the exponential phase. Both strains secreted several kinds of AI which were detected by C18 reversed-phase TLC analysis. The mutant strains showing quorum sensing defects were isolated from *Burkholderia* sp.. Chromosomal DNA of the mutants was digested by *Bam*HI and self-ligated. Subsequently, *E. coli* DH5 α / λ *pir* was transformed and the Tn5 junction region was sequenced. From the nucleotide comparison analysis, *Bcc* strain 383 showed most high homology with the strain used in this study. The Tn5 junction regions were shown in chromosomes 1, 2, and 3. Numerous genes including LuxR family were found.