

**B318 Occurrence of High-Level Gentamicin Resistance Bacteria
in Environmental Isolates**

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The emergence of high level aminoglycoside resistance bacteria has become a major challenge in the treatment of infectious diseases. The MICs of low level aminoglycoside resistance bacteria are between 2 and 16 ug/ml. In recent year, however, a number of bacterial strains exhibit high level aminoglycoside resistance; the MICs are over 2,000 ug/ml. A total 200 bacterial colonies were screened for high level of gentamicin resistance from hospital wastewater. The occurrence of *aacC2* gene was determined by DNA hybridization using internal fragment of this gene as probe. With the isolates which were positive on hybridization, the involvement of Tn3 on expression of gentamicin resistance gene was determined by PCR. The identification of the high level gentamicin resistant isolates having *aacC2* gene was carried out with Biolog system.

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**Biodegradation of trichloroethylene by a strain that
degraded phenol**

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Trichloroethylene(TCE) is a widespread groundwater pollutant, and it is also a suspected carcinogen. Furthermore, anaerobic bacteria that are present in TCE-contaminated water transform TCE to vinyl chloride, which is mutagenic and carcinogenic in mammals.

A variety of soil and water samples from Ysangsang river and the surroundings were screened for phenol degradation. The several isolates were found to metabolize phenol, these followed trichloroethylene degradation experiments. One strain that degraded TCE was identified as a *Rhodococcus* sp..