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***Micrococcus* sp. BCNU 121균에서의 유기용매
shock 반응과 heat shock 반응의 연관성**

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**The relationship between stress response toward toluene
and heat shock in *Micrococcus* sp. BCNU 121**

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Toluene tolerance and thermotolerance response of the Gram-positive bacterium *Micrococcus* sp. BCNU 121 has been studied. The toluene resistance (3%) of mid-growth cells of *Micrococcus* sp. BCNU 121 grown at 32°C was enhanced by exposing the cells to a prior toluene shock in the presence of 0.1% toluene for 1hr. The thermotolerance (60°C) of the cell was also induced by exposing cells to a prior heat shock at 50°C for 30min. The ability of heat shocked cells to tolerate heat increased 400 fold. Pre-treatments with toluene 0.05% and 0.07% (v/v) also induced thermotolerance at 60°C. Heat shock (50°C) induced toluene tolerance (3%), 5 fold in survival was observed.