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## Acta Medica Iranica

2009;47(4) : 19-22

### SIMULTANEOUS EFFECTS OF SHAKING AND TEMPERATURE ON VEROTOXIN1 PHAGE INDUCTION FROM VEROTOXIGENIC ESCHERICHIA COLI STRAINS

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#### Abstract:

Induction of lambda phage carrying verotoxin1 gene from a verotoxigenic strains of Escherichia coli and released verotoxin1 were studied under environmental factors of shaking and temperature. Verotoxin1 phage in Escherichia coli PA 101 and transductants was confirmed by bacteriophage detection assay. Shaking of culture media and increasing temperature until 42 °C increased phage particles in supernatants of Escherichia coli PA 101. Our results indicate that environmental factors such as shaking movements in natural inhabitates of bacteria such as river or sewage streams and temperature rise in summer season could be factors in induce and release free verotoxin1 – producing phage particles in nature that in turn could be the source of phage spreading to other related bacteria , and responsible for increased outbreaks of food borne diseases with verotoxigenic Escherichia coli in warm monthes of year in tropical areas.

#### Keywords:

Verotoxigenic Escherichia Coli , lambda bacteriophges , verotoxin1

TUMS ID: 3105

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