

ARE H₂ AND PHASE CONTROLLER SEPARABLE BY RECOMBINATION ?

A monophasic culture of (i):e,n,x type obtained from 'Sal. abortus-equi (a):
e,n,x ---x Sal. typhimurium i:1,2' was transferred to anti-e,n,x serum NGA deep
tube. i:(e,n,x) type of monophasic culture was selected from the deep tube.
In this monophasic type, H₂ is expected to be stabilized in inactive state.
Consequently, the following transduction experiment will produce swarm only
when recombination occurred between H₂ and phase controller.

Sal. typhimurium i:1,2 ---x the i:(enx) type $\xrightarrow[\text{anti-i, \&-1,2}]{\text{NGA.}}$ (i):e,n,x or none ?

Experiment.

A lysate of Sal. typhimurium TM2 (titer 4.5×10^9 /ml) was mixed with equal
volume of penassay broth culture of the i:(enx) type and the mixture was dropped
on anti-i,1,2 NGA deep tubes, 0.1 ml in each. So far, twenty five deep tube
cultures have been tested. None of them produced swarm. That is, no evidence
of recombination between H₂ and phase controller has been obtained.