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### Isolation and characterization of a new broad acting lytic Pasteurella-phage

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**W**e have isolated a genus specific Pasteurella-phage lytic to the vaccine strain P52 (B:2) as well as multidrug resistant field isolates of *P. multocida* (B:2) and fowl cholera agent (*P. multocida* A:1). It had an icosahedral head (27 x 24nm) and a well marked 134.5 nm long non-contractile tail characteristic of the order *Caudovirales*, family Siphoviridae. Its genomic DNA had four restriction sites for *AluI* and four for *HaeIII* which is strikingly different from a Pasteurella-phage reported earlier with restriction sites for *Hind III* and *Bam HI*. Its SDS PAGE profile revealed 15 proteins 5kDa-160kDa in size with major polypeptides of 170, 100, 71 and 20 kDa, respectively. Immunoblot analysis revealed seven major immunogenic proteins of 20, 27, 30, 42, 50, 60, 71kDa, respectively. The phage was found to be stable in pH range of 5-9. It survived at -200C even after 48hrs of incubation, but failed to survive 30 min of incubation at 600C. It survived treatments with proteinase-K (20mg/ml) and lysozyme (20mg/ml) however, its survivability decreased to 10% and 5%, respectively after 20 min of exposure. RNase did not affect the survivability of the phage. A few minutes of exposure to UV rays proved detrimental to its survival.

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