Golbarg Malekhoseini, J Bacteriol Parasitol 2016, 7:6 (Suppl)
http://dx.doi.org/10.4172/2155-9597.C1.026

Simultaneous identification of *Mycoplasma gallisepticum* and *Mycoplasma synoviae* by duplex PCR assay

Golbarg Malekhoseini
Islamic Azad University, Iran

Mycoplasma gallisepticum and *Mycoplasma synoviae* have recognized as common respiratory pathogens especially in chickens causing lots of economical losses in poultry industries. The aim of this study was to develop and validate duplex Polymerase Chain Reaction (PCR) for simultaneous detection of *M. gallisepticum* and *M. synoviae*. A total of 50 samples from tracheas, lungs and air sacs were taken from commercial broiler chicken farms in Iran. The samples were cultured in PPLO broth supplemented for *M. gallisepticum* and *M. synoviae* isolation and bacteria DNA were extracted by phenol/chloroform extraction method. The conserved region of *16S rRNA* gene was applied for the detection of *Mycoplasma* genus in 163 bp fragment and *M. gallisepticum* in 183 bp fragment and vlhA gene was also employed for detection of *M. synoviae* in 350 bp fragment. Hence, duplex PCR amplified the conserved region of *16S rRNA* and *vlhA* genes which were then applied for detection of *M. gallisepticum* and *M. synoviae*. 20 samples in *Mycoplasma* genus and 7 samples in *M. gallisepticum* and *M. synoviae* were positive in the single PCR whereas in 3 samples *M. gallisepticum* and *M. synoviae* were simultaneously positive in the duplex PCR method. The results showed that duplex PCR was successful to simultaneous identification of *M. gallisepticum* and *M. synoviae* and suggested that duplex PCR is more rapid and inexpensive method than the single PCR for detection of *M. gallisepticum* and *M. synoviae*.

Biography

Golbarg Malekhoseini has completed her MSc in 2011 from University of Qom, Pakistan. Currently, she is an Assistant Professor at Islamic Azad University of Arak and also working as a Manager of Quality Control in Ice Factory of Arak.

g1_malekhoseini@yahoo.com

Notes: