

7th Euro Global Summit on

Clinical Microbiology and Mycotoxins

February 27-28, 2017 Amsterdam, Netherlands

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

Golbarg Malekhoseini, Seyed Ali Pourbakhsh, Ali Reza Homayounimehr, Mohammad Reza zolfeghari, Abass Ashtari and Ali Reza Abtin
Islamic Azad University of Arak, Iran

Mycoplasma gallisepticum (M.G) and *Mycoplasma synoviae* (M.S) have been recognized as common respiratory pathogens especially in chickens causing lots of economic losses in poultry industries. The aim of this study was to develop and validate duplex polymerase chain reaction (PCR) for simultaneous detection of MG & MS. 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.S and M.G 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 163bp fragment and MG in 183 bp fragment and *vlhA* gene was also employed for detection of MS in 350 bp fragment. Hence, duplex PCR amplified the conserved region of 16S rRNA and *vlhA* genes which were then applied for detection of MG & MS. 20 samples in Mycoplasma genus, and 7 samples in MG & MS were positive in the single PCR; whereas in 3 samples, MG & MS were simultaneously positive in the duplex PCR method. The results showed that duplex PCR was successful to simultaneous identification of MG & MS and suggested that duplex PCR is more rapid and inexpensive method than the single PCR for detection of MG & MS.

Biography

Golbarg Malekhoseini has finished her MSc in 2011 from Qom University. Currently, she is Assistant Professor at Islamic Azad University of Arak. Also, she is working as a Manager of Quality Control in ice factory of Arak. His group simultaneously identified *Mycoplasma gallisepticum* and *Mycoplasma synoviae* by duplex PCR assay at Vaccine Institute of Karaj.

g1_malekhoseini@yahoo.com

Notes: