

عنوان مقاله:

Development and Evaluation of Real-Time RT-PCR Test for Quantitative and Qualitative Recognition of Current H⁹N₂ Subtype Avian Influenza Viruses in Iran

محل انتشار:

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خلاصه مقاله:

Avian influenza H⁹N₂ subtype viruses have had a great impact on Iranian industrial poultry production economy since introduction in the country. To approach Rapid and precise identification of this viruses as control measures in poultry industry, a real time probe base assay was developed to directly detect a specific influenza virus of H⁹N₂ subtype -instead of general detection of Influenza A viruses- which has been endemic over two last decades in the country. An Iranian avian influenza virus strain of A/Iran/chicken/772/1998 H⁹N₂ subtype were selected as reference strain for of primers and probe designing. The high agreement value of 99% indicated that the devolved real time assay for detection of H⁹ subtype viruses could easily replace the conventional method of virus isolation particularly in investigation of viruses like national surveillance plan. The limit of detection was almost one EID₅₀ which was the least real infectious unit could be detected. So it can be said that this sensitive assay provided a powerful tool to not to miss any significant viral biological activity neither in the host body nor in the environment. A high level of correlation coefficient ($R^2 = 0.998$) also indicated a good correlation between Ct values and viral concentrations. , it can be conclude that the real time RT-PCR could be easily replace virus isolation in detection of H⁹N₂ influenza viruses especially in large monitoring program. The ability in quantifying of the virus concentration extends usage of test in more accurate studies.

کلمات کلیدی:

Real-Time RT- PCR, Avian Influenza, Comparison, H⁹N₂, Culture

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