International Journal of ChemTech Research
CODEN(USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.10 No.9, pp388-401,2017

Genetic Characterization and the Development of Multiplex PCR for Common Respiratory viruses, in Chennai during September 2013 to January 2014

RRamya, P.Sagadevan*,K. JayaramJayaraj

Department of Biotechnology KG College of Arts and Science, Coimbatore, Tamil Nadu, India

Abstract: Totally 200 samples were collected during the period of September 2013 to January 2014, from different Hospitals (Private and Government Hospitals) in Chennai. All the samples were subjected to two tubes multiplex PCR. First tube will detect RSV and FLU; second tube will detect Para influenza viruses 1-4 and HmPV.Positive results were obtained and confirmed with gel electrophoresis, where RSV showed the highest positivity followed by FLU A and B.Co-infections were observed with RSV+INFA, RSV+PIV 2 and RSV+PIV 3.The RT-PCR products of the viruses were sequenced using the ABI PRISM Big Dye Terminator V3.1cycle kit and the sequence was documented in NCBI.To conclude, a simplified multiplex PCR for the detection of seven respiratory viruses in samples from patients with ALRI was developed. This assay was found to be more sensitive, less time consuming and economical than virus isolation. Multiplex PCR format allowed the detection of co infections which cannot be done using monoplex PCR or culture as shown in the present study.

Key words: HmPV,RSV,RSV+PIV 2 RSV+PIV 3 and PCR.

*****