



microRNAs in avian influenza virus H9N2-infected and non-infected chicken embryo fibroblasts

X. Peng, Q.S. Gao, L. Zhou, Z.H. Chen, S. Lu, H.J. Huang, C.Y. Zhan
and M. Xiang

Animal Biotechnology Laboratory,
Wuhan Institute of Animal and Veterinary Science,
Wuhan Academy of Agricultural Science & Technology, Wuhan, China

Corresponding author: X. Peng
E-mail: pengxiahao@163.com

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ABSTRACT. There is limited information about microRNAs (miRNAs) in H9N2 subtype influenza virus-infected chicken cells or tissues. In this study, 10,487,469 and 13,119,795 reads were obtained from infected and non-infected chicken embryo fibroblasts, respectively. Seven hundred and thirty-six and 1004 miRNAs, including mature miRNAs and precursors, were obtained from the infected and non-infected fibroblasts, respectively. Of those miRNAs, 48 were expressed differently between the groups: 37 had a low expression level in the infected chicken embryo fibroblast, and the remaining 11 had a higher expression level. Every miRNA was predicted to target immune response-related genes. It has been found that some of the miRNAs, such as gga-miR-146c, gga-miR-181a, gga-miR-181b, gga-miR-30b, gga-miR-30c, gga-miR-30e, and gga-miR-455, are expressed differently in other types of influenza-infected chicken cells or tissues.

Key words: Avian influenza virus; Chicken embryo fibroblast; H9N2; miRNA