

EFFECTIVENESS OF IgY ANTI-NEURAMINIDASE FROM AVIAN INFLUENZA VIRUS CLADE 2.1.3 AS SEROTERAPI MATERIALS TOWARD INFECTED CHICKEN BY AVIAN INFLUENZA VIRUS CLADE 2.3.2.

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ABSTRACT

This research aimed to ; (1) Proved that the IgY anti-NA from *Avian Influenza Virus H5N1 Subtype clade 2.1.3* is able to inhibit the replication of *Avian Influenza virus H5N1 subtype clade 2.3.2* viewed from mortality and virus replication in the immunohistochemistry. (2) To find out the process of viral replication-inhibited AI H5N1 Subtype *clade 2.3.2* by IgY anti-NA is based on antigen and antibody binding immunohistochemistry picture. (3) To find out the effectiveness of IgY anti-NA from Avian Influenza H5N1 subtype clade 2.1.3 to inhibit viral replication of Avian Influenza virus H5N1 clade 2.3.2, based on therapeutic doses (0µg, 125µg, 250µg, 500µg) and timing (H-1 , H-0, H + 1) in chickens. This study is divided into three stages ; Firstly, formulation immunotherapy agents anti-NA antibodies with different levels and preparing for a virus challenge test, secondly, challenge test and artificial infection in chickens with seroterapi administration at different times. Thirdly, preparations immunohistochemical examination for detection of Avian influenza virus antigen and detection of anti-NA antibody binding to the cell tropism. The results of this study indicate that; (1) IgY anti-NA from *Avian Influenza virus H5N1 clade 2.1.3* is able to protect chickens from infection of *Avian Influenza H5N1 clade 2.3.2*. (2) The mechanism of IgY anti-NA protection from *Avian Influenza virus H5N1 clade 2.1.3* toward Avian Influenza virus infection H5N1 subtype clade 2.3.2 occurs by inhibit of the bond hydrolysis galactose and N-asetilneuraminik. (3) The effectiveness of IgY anti-NA, which is most effective, occurred at a therapeutic dose of 500 µg, the most effective provision is a day prior to infection (H-1) and in simultaneously with the avian influenza virus infection (H-0) which has protectiveness value reaches 60 – 100%.

Key words : anti-NA antibody, IgY, *Avian influenza H5N1 clade 2.3.2*, *Avian influenza H5N1 clade 2.1.3*.

