

ABSTRACT**PROTECTION AND MECHANISM INHIBITION OF H5N1 BIRD FLU VACCINE-RG
UNAIR AGAINST AVIAN INFLUENZA VIRUS
SUB clade 2.1.3****M.Yusuf Alamudi**

Recent influenza illness is a disease which is alarming in both Indonesia and the world today, especially if associated with an outbreak of bird flu. Since 1997, avian influenza virus subtype H5N1 with a high level of pathogenicity (highly pathogenic) infect humans in Hong Kong and previously only infect birds. In addition, the potential for bird flu virus subtype H5N1 that a candidate cause of the pandemic become a focus of attention and the world today (Pappaioano, 2009). Vaccination programs carried out when stamping out program to prevent the spread of bird flu virus is not effective. The vaccine is also used to prevent the occurrence of clinical symptoms and mortality in poultry, maintaining economic stability and food security. Airlangga University, through the Avian Influenza Research Center (Laboratory Animal BSL-3) in 2011 has resulted in seed virus using reverse genetics technology as a bird flu vaccine for humans. Isolates used were isolates Indonesian strain of bird flu virus which has infected the victim in the area of West Java. Nasal swab results from bird flu victim from the Ministry of Health in 2006 and successfully grown the virus in laboratorium ABSL-3 facility. Both humoral immune response mechanisms and cellular against H5N1-RG Airlangga not been much studied. In addition, the mechanism of inhibition of H5N1 vaccine seed-RG Airlangga against various avian influenza virus proteins through analysis proteiomik many unknowns. General purpose of this study to examine the interaction vaccines for avian bird flu and vaccine seed from Airlangga University against the bird flu virus subclade 2.1.3. The research procedure consisted of testing the antibody titer by using Hemagglutination inhibition, Elisa for measuring IgG, TNF-alpha, IFN-gamma, STAT-1, characteristic of avian influenza virus from poultry and humans is 1-dimensional and 2-dimensional, the reactivity between influenza virus birds from poultry and humans with animal serum which had been vaccinated with the use of bird flu vaccine seed from birds and bird flu vaccine for humans by western blotting using 1-dimensional and 2-dimensional. Protein with 3-dimensional characteristics. From the research that has been conducted against the H5N1 bird flu vaccine seed RG-Airlangga University and bird flu viruses that infect birds and humans, obtained protection mechanisms and inhibition are different when compared with vaccines for avian bird flu circulating in Indonesia. H5N1 bird flu vaccine seed-RG Airlangga University also has a protection mechanism and a different inhibition after reactivity with avian flu viruses that infect birds and humans. Protection mechanisms and the inhibition of the H5N1 bird flu vaccine seed-RG Airlangga against bird flu viruses that infect birds are related to attachment or adhesion receptors on the host and is associated with apoptosis and inflammation. This is due to the results of reactivity between bird flu virus in poultry and infecting the host's serum injected using RG Airlangga H5N1 Hemagglutinin protein expression and PB1. Hemagglutinin is the function of the protein as an attachment to the host through distinct terminal sialic acid and protein PB1 which has linkages with apoptosis and inflammation. Hemagglutinin protein and PB1 addition, protection mechanisms and the inhibition of seed-RG vaccine H5N1 avian use of the interferon pathway. Protection mechanisms and the inhibition of bird flu vaccine seed bird flu vaccine against the bird flu virus that infects humans is associated

with attachment or adhesion receptors on the host and is associated with apoptosis and inflammation, inhibits the formation of new virions and spread of progeny virus between cells.

Keyword: Mechanism, protection and inhibition, H5N1-RG Unair, Bird Flu

