

The Inhibition Test for SongSing Nano-Silver to H6N1 Avian Influenza virus

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Abstract

The 10ppm, 20ppm and 50ppm of “Fragrant Nano-Silver anti-virus clear liquid” are mixed separately with 10^6 EID concentration of H6N1 Avian Influenza virus for the experiment. First of all, place the mixed solution under room temperature for 2 hour sensitization, and then serially dilute the solution for decuple. To evaluate the inhibiting result, examine the survival rate of H6N1 Avian Influenza virus under the influence of Nano-Silver solution from the inoculation of chicken embryo. The experiment indicates that 20ppm and 50ppm of “Fragrant Nano-Silver anti-virus clear liquid” reveal better result.

Test Material and Procedure

1. 20ppm and 50ppm of “Fragrant Nano-Silver anti-virus liquid” are provided by SongSing Nano Technology Co., Ltd.
2. **Virus used for test:** The titers of H6N1 Avian Influenza virus used in the test group is 10^6 EID/0.1ml.
3. **Test Groups:** Mix 10ppm (dilute 20ppm liquid with deionized water), 20ppm, and 50ppm of 0.5ml “Fragrant Nano-Silver anti-virus clear liquid” with 0.5ml H6N1 Avian Influenza virus separately. Place the mixed solutions under room temperature (in the dark) for 2 hour sensitization.
4. **Control Group:** Mix 0.5ml PBS (Phosphate Buffered Saline) with 0.5ml H6N1 Avian Influenza virus completely and also places it under room temperature (in the dark) for 2 hour sensitization.
5. **Test virus titers after sensitization:** After sensitization, dilute $10^{-1} \sim 10^{-8}$ of the test groups and the control group. Obtain 0.1ml solution of each dilution gradient and inject each solution into two of 10 days old chicken embryo separately. Cultured the injected chicken embryos for 3 days at 35°C , and then inspect the hemagglutinin (HA) of the allantoises in the chicken embryos in order to determine whether the virus increases or not.

Result:

The test result is shown in the table below.

The Result of Nano-Silver Inhibiting Avian Influenza Virus (H6N1)

Test Group	Virus titers after treatment (EID/0.1 ml)	Virus titers of the Control Group (EID/0.1 ml)	Rate of Virus Inhibited (%)
(1) Fragrant Nano-Silver anti-virus clear liquid (10ppm)	10^4	10^6	99
(2) Fragrant Nano-Silver anti-virus clear liquid (20ppm)	10^1	10^6	99.999
(3) Fragrant Nano-Silver anti-virus clear liquid (50ppm)	10^1	10^6	99.999

Conclusion:

Both 20ppm and 50ppm “Fragrant Nano-Silver anti-virus clear liquid” reveal remarkable result of inhibiting Avian Influenza Virus (H6N1).

Annotation:

This report only verifies the result of the tested products shown above. It should not be used separately for other products without the agreement of our institute.