



## EFFICACY OF THE AWIONS AWD6 SERIES AGAINST AEROSOLIZED SARS-CoV-2

**PROJECT: ALFA WATER AWIONS - SARS-COV-2**

PRODUCT: AWIONS AWD6 SERIES

CAP LIC NO: 8860298

CLIA LIC NO: 05D0955926

STATE ID: CLF 00324630

**CHALLENGE**

SARS-CoV-2 USA-CA1/2020

**ORGANISM(S):**

**Medical Director**

Dana Yee, M.D.

**Testing Facility**

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**Laboratory Project Number**

1139

# INNOVATIVE BIOANALYSIS

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## Efficacy Study Summary

<b>Study Title</b>	EFFICACY OF THE AWIONS AWD6 SERIES AGAINST AEROSOLIZED SARS-COV-2
<b>Laboratory Project #</b>	1139
<b>Guideline:</b>	Modified ISO standards as no international standards exist.
<b>Testing Facility</b>	Innovative Bioanalysis, Inc.
<b>GLP Compliance</b>	All internal SOPs and processes follow GCLP guidelines and recommendations.
<b>Test Substance</b>	SARS-CoV-2 USA-CA1/2020
<b>Description</b>	The Awions AWD6 ion generator has been designed to be integrated into an air handling and management system. This in vitro study aims to determine the efficacy of the Awions AWD6 against aerosolized SARS-CoV-2 USA-CA1/2020.
<b>Test Conditions</b>	Testing was conducted in a sealed 20'x8'x8' chamber that complied with BSL-3 standards. The temperature during testing ranged between $75 \pm 2^{\circ}\text{F}$ , with a relative humidity of 57%. A $5.26 \times 10^6$ TCID50/mL of SARS-CoV-2 in viral media was nebulized into the room, and air samples were collected after 0, 30, and 60 minutes of device operation.
<b>Test Results</b>	Against SARS-CoV-2, an initial concentration of $5.26 \times 10^6$ TCID50/mL was reduced to $2.13 \times 10^6$ TCID50/mL after 30 minutes with controlled airflow. Increased exposure time resulted in a higher reduction of aerosolized SARS-CoV-2. After 60 minutes, the concentration collected dropped to $2.40 \times 10^3$ TCID50/mL.
<b>Control Results</b>	A control was conducted without the device operating, and samples were taken at the corresponding time points used for the challenge. The results displayed a natural viability loss over time in the chamber and served as a comparative baseline to calculate viral reduction.
<b>Conclusion</b>	The Alfa Water Awions AWD6 Series demonstrated observable reduction capabilities against aerosolized SARS-CoV-2 compared to natural loss rates. The device achieved a 99.954% reduction after 60 minutes of operation against aerosolized SARS-CoV-2.

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