

**Lyher® Novel coronavirus (2019-ncov) Antigen Test Kit  
Cross-reactivity Study**

- 1、 **Objective:** To determine whether there is interference between COVID-19 antibody and other materials, esp. other coronavirus in Lyher® novel Coronavirus (2019-ncov) antigen Test Kit.
- 2、 **Materials:**1) Three batches of Lyher® novel coronavirus (2019-ncov) antigen Test Kit manufactured by Hangzhou Laihe Biotech Co.,Ltd; (hereinafter referred to as “Lyher Kit”) (Lot No.: 2008001, 20008002, 20008003)  
2) COVID antigen Panel (catalog No.: 370095) from NIFDC.

COVID Antigen Panel	
ID	Description of Specimens
L1	Dilute COVID-19 Positive sample
L2	Dilute COVID-19 Positive sample
L3	Dilute COVID-19 Positive sample
L4	COVID-19 Negative sample
L5	COVID-19 Negative sample
L6	COVID-19 Negative sample
L7	COVID-19 Negative sample
L8	COVID-19 Negative sample
L9	COVID-19 Negative sample
L10	COVID-19 Negative sample
P1	Dilute COVID-19 Positive sample
P2	Dilute COVID-19 Positive sample
P3	Dilute COVID-19 Positive sample
P4	Dilute COVID-19 Positive sample
P5	Dilute COVID-19 Positive sample
P6	Dilute COVID-19 Positive sample
P7	Dilute COVID-19 Positive sample
P8	Dilute COVID-19 Positive sample
P9	Dilute COVID-19 Positive sample
P10	Dilute COVID-19 Positive sample
N1	$\alpha$ Coronavirus (NLE63)
N2	$\alpha$ Coronavirus (229E)
N3	$\beta$ Coronavirus (HKU1)
N4	$\beta$ Coronavirus (OC43)
N5	SARS
N6	MARS
N7	Influenza virus (seasonal H1N1)
N8	Influenza virus (H1N1 2009)
N9	Influenza virus (H7N9)
N10	Influenza virus (Yamagata)
N11	Influenza virus (Victoria)

N12	respiratory syncytial virus
N13	Adenovirus
N14	EBV
N15	Measles
N16	CMV
N17	Rotavirus
N18	Norovirus
N19	Mumps
N20	mycoplasma pneumoniae
N21	HAV
N22	HBV
N23	Rhinovirus
N24	Enterovirus
N25	HIV

### 3) Pipette, Timer

Note: This study was completed by NIFDC in their laboratory.

### 3、 Test procedures

3.1 take the samples and kits out, and wait them reach room temperature.

3.2 take 100 µl sample into the Specimen tube, and then add 10 drops of Specimen extraction buffer.

3.3 shake 10 seconds, and stand for 2 minutes.

3.4 Place the clean dropper tip on the specimen tube and invert the specimen tube so that it is perpendicular to the sample hole (S) and add 3 drops (about 100µl) of the sample.

3.5 Set timer for 15 minutes.

3.6 Reading the result.

### 4、 Results

Here are the test results.

ID	Test results		
	2008001	2008002	2008003
L1	Positive	Positive	Positive
L2	Positive	Positive	Positive
L3	Negative	Negative	Negative
L4	Negative	Negative	Negative
L5	Negative	Negative	Negative
L6	Negative	Negative	Negative
L7	Negative	Negative	Negative
L8	Negative	Negative	Negative
L9	Negative	Negative	Negative
L10	Negative	Negative	Negative
P1	Positive	Positive	Positive
P2	Positive	Positive	Positive

P3	Positive	Positive	Positive
P4	Positive	Positive	Positive
P5	Positive	Positive	Positive
P6	Positive	Positive	Positive
P7	Positive	Positive	Positive
P8	Positive	Positive	Positive
P9	Positive	Positive	Positive
P10	Positive	Positive	Positive
N1	Negative	Negative	Negative
N2	Negative	Negative	Negative
N3	Negative	Negative	Negative
N4	Negative	Negative	Negative
N5	Negative	Negative	Negative
N6	Negative	Negative	Negative
N7	Negative	Negative	Negative
N8	Negative	Negative	Negative
N9	Negative	Negative	Negative
N10	Negative	Negative	Negative
N11	Negative	Negative	Negative
N12	Negative	Negative	Negative
N13	Negative	Negative	Negative
N14	Negative	Negative	Negative
N15	Negative	Negative	Negative
N16	Negative	Negative	Negative
N17	Negative	Negative	Negative
N18	Negative	Negative	Negative
N19	Negative	Negative	Negative
N20	Negative	Negative	Negative
N21	Negative	Negative	Negative
N22	Negative	Negative	Negative
N23	Negative	Negative	Negative
N24	Negative	Negative	Negative
N25	Negative	Negative	Negative

From these results, we can conclude that Lyher Kit does not cross react with other coronaviruses and other Interfering substance.