CLAIMS

1. A test device by immunochromatography comprising a case including a dropping window on which a specimen is dropped and detection windows, and test pieces accommodated in the case, wherein:

the test pieces include

a first test piece comprising a first detection portion,

a second test piece comprising a second detection portion, and

a dropping area common to the first detection portion and the second detection portion;

the test device is configured so that the first test piece and second test piece are aligned in parallel such that a band lengthwise direction conforms to a lengthwise direction of the test device, and when the specimen is dropped on the dropping area through the dropping window, the specimen is caused to migrate downstream and the same specimen is allowed to reach both the first detection portion and the second detection portion;

the first detection portion can trap a complex of a first labeled body and a first antibody contained in the specimen;

the second detection portion can trap a complex of a second labeled body and a second antibody contained in the

specimen;

the first antibody is an antibody produced by vaccination or infection with a predetermined virus and that binds to a part of a spike protein;

the second antibody is an antibody produced by infection with the virus and that binds to a part of a nucleocapsid protein;

the test device is configured so that a test result from the first detection portion for the specimen dropped onto the dropping area and a test result from the second detection portion for the same specimen, both visually observed through the detection windows, can be determined in parallel and at the same time; and

the test device distinguishes a single state from among multiple states, wherein the single state is selected from the group consisting of:

a first state wherein a positive test result is observed in both the first detection portion and the second detection portion, which indicates a history of natural virus infection and that a neutralizing antibody has been produced;

a second state wherein a positive test result is observed only in the first detection portion, which indicates that a neutralizing antibody has been produced;

a third state, wherein a positive test result is

observed only in the second detection portion, which indicates that a neutralizing antibody has not been produced; and

a fourth state, wherein a positive test result is not observed in both the first detection portion and the second detection portion, which indicates that a neutralizing antibody has not been produced.

2. The test device according to claim 1, wherein a number of the dropping window is one.

3. The test device according to claim 1 or 2, wherein the first antibody and the second antibody are antibodies that are derived from human and same type of immunoglobulin and trap different antigens.

4. The test device according to any one of claims 1 to 3, comprising a first labelled body-containing portion containing the first labeled body, and a second labeled body-containing portion containing the second labeled body.

5. The test device according to any one of claims 1 to 4, wherein:

the first labeled body includes, as an antigen, a part of a spike protein of the virus; and

the second labeled body includes, as an antigen, a nucleocapsid protein of the virus.

6. The test device according to any one of claims 1 to 5, wherein the virus is a SARS-CoV-2 virus.

7. A test kit comprising:

the test device according to any one of claims 1 to 6; and

a determination guide that allows for determining a state of the specimen including a possibility that an antibody is produced by the vaccination on a basis of a test result from the first detection portion and a test result from the second detection portion.

8. A test method using the test device according to any one of claims 1 to 6, the method comprising:

a step of dropping the specimen on the dropping area to cause the specimen to migrate within the test pieces so that the same specimen is allowed to reach both the first detection portion and the second detection portion;

a step of detecting presence or absence of the first antibody in the specimen and detecting presence or absence of the second antibody in the specimen; and

a step of combining detection results from the first

antibody and the second antibody to determine a state of the specimen, wherein

the test method distinguishes a single state from among multiple states, wherein the single state is selected from the group consisting of:

a first state wherein a positive test result is observed in both the first detection portion and the second detection portion, which indicates a history of natural virus infection and that a neutralizing antibody has been produced;

a second state wherein a positive test result is observed only in the first detection portion, which indicates that a neutralizing antibody has been produced;

a third state, wherein a positive test result is observed only in the second detection portion, which indicates that a neutralizing antibody has not been produced; and

a fourth state, wherein a positive test result is not observed in both the first detection portion and the second detection portion, which indicates that a neutralizing antibody has not been produced.

9. The test method according to claim 8, wherein when the detection result of the first antibody is positive and the detection result of the second antibody is negative, it is

determined that the first antibody may have been produced in the specimen by the vaccination.

10. A test method for determining presence or absence of a first antibody and a second antibody in a specimen by immunochromatography, where the first antibody is an antibody produced by vaccination or infection with a predetermined virus and that binds to a part of a spike protein, and the second antibody is an antibody produced by infection with the virus and that binds to a part of a nucleocapsid protein,

the method comprising:

a step of dropping the specimen on a dropping area of test pieces including a first test piece and a second test piece, a first detection portion of the first test piece, a second detection portion of the second test piece, and the dropping area common to the first detection portion and the second detection portion, so that the specimen is caused to migrate within the test pieces and the same specimen is allowed to reach both the first detection portion and the second detection portion;

a step of determining presence or absence of the first antibody in the specimen by the first detection portion and determining presence or absence of the second antibody in the same specimen that was dropped onto the dropping area by the second detection portion; and

a step of combining detection results of the first antibody and the second antibody to derive a determination from determination candidates including a possibility that the first antibody is produced by the vaccination in the specimen,

wherein the test method distinguishes a single state from among multiple states, wherein the single state is selected from the group consisting of:

a first state wherein a positive test result is observed in both the first detection portion and the second detection portion, which indicates a history of natural virus infection and that a neutralizing antibody has been produced;

a second state wherein a positive test result is observed only in the first detection portion, which indicates that a neutralizing antibody has been produced;

a third state, wherein a positive test result is observed only in the second detection portion, which indicates that a neutralizing antibody has not been produced; and

a fourth state, wherein a positive test result is not observed in both the first detection portion and the second detection portion, which indicates that a neutralizing antibody has not been produced.

11. The test method according to claim 10, wherein when a

detection result of the first antibody is positive and a detection result of the second antibody is negative, it is determined that the first antibody may have been produced in the specimen by vaccination.

12. The test method according to claim 10 or 11, wherein the virus is a SARS-CoV-2 virus.