Claims

1. An isolated antibody or a binding fragment thereof that is capable of binding to influenza A virus hemagglutinin and neutralizing at least one group 1 subtype and at least 1 group 2 subtype of influenza A virus, wherein the antibody or fragment thereof includes a set of six CDRs which includes HCDR1 of SEQ ID NO.: 113, HCDR2 of SEQ ID NO.: 114, HCDR3 of SEQ ID NO.: 115, LCDR1 of SEQ ID NO.: 118, LCDR2 of SEQ ID NO.: 119 and LCDR3 of SEQ ID NO.: 120.

2. The antibody or binding fragment according to claim 1, wherein the antibody or binding fragment is capable of neutralizing one or more influenza A virus group 1 subtype selected from: H1, H2, H5, H6, H8, H9, H11, H12, H13, H16 and variants thereof; and one or more influenza A virus group 2 subtypes selected from: H3, H4, H7, H10, H14 and H15 and variants thereof.

3. The antibody or binding fragment thereof according to claim 1, wherein the antibody or binding fragment is capable of neutralizing group 1 subtypes: H1, H2, H5, H6 and H9 and group 2 subtypes H3 and H7; or wherein the antibody or binding fragment is capable of neutralizing group 1 subtypes: H1, H2, H5 and H6 and group 2 subtypes H3 and H7.

4. The antibody or binding fragment thereof according to claim 1, wherein the antibody or binding fragment has high neutralizing potency expressed as 50% inhibitory concentration (IC_{50} ug/ml) in the range of from about 0.01ug/ml to about 50ug/ml of antibody for neutralization of influenza A virus in a microneutralization assay.

5. The antibody or binding fragment thereof according to claim 1 comprising a VH having at least 75% identity and/or a VL having at least 75% identity to a VH of SEQ ID NO.: 112 and a VL of SEQ ID NO.: 117.

6. The antibody or binding fragment thereof according to claim 1 comprising a VH of SEQ ID NO.: 112 and a VL of SEQ ID NO.: 117.

7. The antibody or binding fragment thereof according to claim 1, wherein the antibody or binding fragment is selected from the group consisting of: an immunoglobulin molecule, a monoclonal antibody, a chimeric antibody, a CDR-grafted antibody, a humanized antibody, a Fab, a Fab', a F(ab')2, a Fv, a disulfide linked Fv, a scFv, a single domain antibody, a diabody, a multispecific antibody, a dual-specific antibody, and a bispecific antibody.

8. The antibody or binding fragment thereof according to claim 1, wherein the VH comprises human germline framework VH6-1, the VL comprises human germline framework VK1-39, and combination thereof.

9. The antibody or binding fragment thereof according to claim 1 comprising an Fc region.

10. The antibody or binding fragment thereof according to claim 1, wherein the antibody is an IgG1, IgG2 or IgG4 or fragment thereof.

11. An isolated nucleic acid encoding an antibody or binding fragment thereof according to claim 1.

12. A vector comprising an isolated nucleic acid according to claim 11.

13. A host cell comprising a nucleic acid according to claim 11.

14. A composition comprising an antibody or binding fragment thereof according to claim 1 and a pharmaceutically acceptable carrier.

15. A composition comprising an antibody or binding fragment thereof according to claim 1 comprising 25mM His and 0.15M NaCl at pH 6.0.

16. An antibody or binding fragment thereof according to any one of claims 1 to 2 for use in the prophylaxis or treatment of Influenza A infection in a subject.

17. An antibody for use according to claim 16 for use in combination with a small molecule antiviral composition.

18. The antibody for use according to claim 17, wherein the small molecule antiviral composition is:

(1) a nueramidase inhibitor or an adamantine; and/or

(2) selected from oseltamivir, zanamivir, amantadine, rimantadine, and combinations thereof.