

CLAIMS

1. An antibody comprising the heavy chain CDR1, CDR2, and CDR3 sequences as set forth in SEQ ID NO: 1, SEQ ID NO: 2, and SEQ ID NO: 3, respectively; the light chain CDR1, CDR2, and CDR3 sequences as set forth in SEQ ID NO: 4, SEQ ID NO: 5, and SEQ ID NO: 6, respectively; and the mutations M428L and N434S in the constant region of the heavy chain.
2. The antibody of claim 1, wherein the antibody binds to hemagglutinin of an influenza A virus and/or wherein the antibody neutralizes infection with an influenza A virus.
3. The antibody of any one of the previous claims, wherein the antibody neutralizes polymorphisms HA1 P11S, HA2 D46N, and/or HA2 N49T of H3 HA; and/or polymorphism N146D of H1 HA; preferably wherein the antibody neutralizes polymorphisms HA1 P11S, HA2 D46N, and/or HA2 N49T of H3 HA; and/or polymorphism N146D of H1 HA with IC₅₀ fold changes of < 2 relative to HA of the wild type virus.
4. The antibody of any one of the previous claims, wherein the antibody is a human antibody and/or a monoclonal antibody.
5. The antibody of any one of the previous claims, wherein the antibody is of the IgG type, preferably of the IgG1 type.
6. The antibody of any one of the previous claims, wherein the antibody comprises a heavy chain variable region comprising the amino acid sequence as set forth in SEQ ID NO: 7 or an amino acid sequence having at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, or at least 95% identity to SEQ ID NO: 7; and a light chain variable region comprising the amino acid sequence as set forth in SEQ ID NO: 8 or an amino acid sequence having at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, or at least 95% identity to SEQ ID NO: 8, wherein the CDR sequences as defined in claim 1 are maintained.
7. The antibody of any one of the previous claims, wherein the CH3 region of the antibody does not comprise any further mutation in addition to M428L and N434S, preferably the Fc region of the antibody does not comprise any further mutation in addition to M428L and N434S.

8. The antibody of any one of the previous claims, wherein the antibody comprises a heavy chain comprising or consisting of an amino acid sequence as set forth in SEQ ID NO: 9 and a light chain comprising or consisting of an amino acid sequence as set forth in SEQ ID NO: 10.
9. A nucleic acid molecule comprising a polynucleotide encoding the antibody of any one of claims 1 – 8.
10. A combination of a first and a second nucleic acid molecule, wherein the first nucleic acid molecule comprises a polynucleotide encoding the heavy chain of the antibody of any one of claims 1 – 8; and the second nucleic acid molecule comprises a polynucleotide encoding the corresponding light chain of the same antibody.
11. A vector comprising the nucleic acid molecule of claim 9 or the combination of nucleic acid molecules of claim 10.
12. A cell expressing the antibody of any one of claims 1 – 8, or comprising the vector of claim 11.
13. A pharmaceutical composition comprising the antibody of any one of claims 1 – 8, the nucleic acid of claim 9, the combination of nucleic acids of claim 10, the vector of claim 11, or the cell of claim 12, and, optionally, a pharmaceutically acceptable diluent or carrier.
14. Use of the antibody of any one of claims 1 – 8, the nucleic acid of claim 9, the combination of nucleic acids of claim 10, the vector of claim 11, the cell of claim 12 or the pharmaceutical composition of claim 13, in the manufacture of a medicament for the prophylaxis or treatment of infection with influenza A virus.
15. The use according to claim 14, wherein the medicament is to be administered in combination with an antiviral, preferably wherein the antiviral is selected from neuraminidase inhibitors and influenza polymerase inhibitors, such as oseltamivir, zanamivir or baloxavir.
16. The use according to any one of claims 14 – 15, wherein the medicament is to be administered to a subject that suffers from an autoimmune disease or an allergy; or is at risk of developing an autoimmune disease or an allergy.

17. A method of decreasing immunogenicity of an antibody comprising the heavy chain CDR1, CDR2, and CDR3 sequences as set forth in SEQ ID NO: 1, SEQ ID NO: 2, and SEQ ID NO: 3, respectively; the light chain CDR1, CDR2, and CDR3 sequences as set forth in SEQ ID NO: 4, SEQ ID NO: 5, and SEQ ID NO: 6, respectively; comprising a step of introducing the mutations M428L and N434S in the constant region of the heavy chain of the antibody.
18. The antibody of any one of claims 1 – 8, the nucleic acid of claim 9, the combination of nucleic acids of claim 10, the vector of claim 11, the cell of claim 12 or the pharmaceutical composition of claim 13, for use in the prophylaxis or treatment of infection with influenza A virus.