CLAIMS

1. An influenza hemagglutinin stem domain polypeptide comprising (a) an H1 HA1 N-terminal segment comprising the amino acids 1-52, covalently linked by a linking sequence of 0-10 amino acid residues to an H1 HA1 C- terminal stem segment comprising the amino acids 321-end of HA1, and (b) an influenza hemagglutinin HA2 domain, wherein the C- terminal amino acid residue of the HA1 C-terminal stem segment is glutamine (Q), and wherein one or more of the amino acids on position 406, 409, 413 and 416 have been changed into an amino acid selected from the group consisting of S,T, and G, and wherein the polypeptides comprise a disulphide bridge between the amino acids on position 324 and 436;
   wherein the polypeptide comprises hemagglutinin stem domains from or based on HA of the influenza virus A/Brisbane/59/2007 or A/California/04/2009; and
   wherein the numbering is based on the numbering of amino acids of the H1N1 influenza strain A/Brisbane/59/2007, and
   wherein the polypeptide comprises an amino acid sequence selected from the group of: SEQ ID NO: 44-53 and SEQ ID NO: 144-148, SEQ ID NO: 150-157 and SEQ ID NO: 179-187.

2. A polypeptide according to claim 1, wherein the polypeptide is glycosylated.

3. A polypeptide according to claim 1 or 2, wherein the polypeptide comprises one or more further mutations in the HA1 domain and/or the HA2 domain.

4. A polypeptide according to any one of the preceding claims, wherein the polypeptide does not comprise the signal sequence.

5. A polypeptide according to claim 4, comprising an HA1 N-terminal segment consisting of the amino acids 18-52 of HAl, covalently linked by a linking sequence of 0-50 amino acid residues to an HA1 C- terminal stem segment consisting of the amino acids 321-end of HA1, and (b) an influenza hemagglutinin HA2 domain, wherein p=the first amino acid of the mature HA.

6. A polypeptide according to any one of the preceding claims, wherein the polypeptide does not comprise the intracellular and transmembrane sequence of HA.

7. A polypeptide according to claim 6, wherein the amino acid sequence from position 523, 524, 525, 526, 527, 528, 529 or 530 of the HA2 domain to the C-terminus has been removed.

8. A polypeptide according to any one of claims 1-7, wherein the polypeptide selectively binds to the antibodies CR6261 and/or CR9114 comprising a heavy chain CDR1 region of SEQ ID NO: 25, a heavy chain CDR2 region of SEQ ID NO: 26, a heavy chain CDR3 region of SEQ ID NO: 27, and a light chain CDR1 region of SEQ ID NO: 28, a light chain CDR2 region of SEQ ID NO: 29 and a light chain CDR3 region of SEQ ID NO: 30, and does not bind to the antibody CR8057.

9. A nucleic acid encoding the polypeptide of any one of claims 1 to 8.

10. An immunogenic composition comprising the polypeptide of any one of claims 1 to 8 and/or a nucleic acid molecule according to claim 9.

11. A polypeptide according to any of the claims 1-8, a nucleic acid according to claim 9, and/or an immunogenic composition according to claim 10 for use as a medicament, in particular for use as a vaccine.