CLAIMS

1. An influenza hemagglutinin (HA) stem domain polypeptide comprising (a) an influenza hemagglutinin HA1 domain that comprises an HAl N-terminal stem segment, comprising the amino acids from position 1 to position 52, preferably from position 18 to position 52, of the HA1 domain, covalently linked by a linking sequence of 0-50 amino acid residues to an HA1 C-terminal stem segment, comprising the amino acids from position 321 to and including the C-terminal amino acid of the HA1 domain and (b) an influenza hemagglutinin HA2 domain, wherein the HA1 and HA2 domain are derived from A/Brisbane/59/2007 (SEQ ID NO: 1), wherein the hemagglutinin stem domain polypeptide is resistant to protease cleavage at the junction between HA1 and HA2, and wherein the polypeptide further comprises the mutation R324C in the HA1 domain and T436C in the HA2 domain and wherein the sequence MKQIEDKIEEIESKQ (SEQ ID NO: 5) is introduced at position 419-433, and wherein one or more amino acids at positions 337, 340, 352, 353, 402, 406, 409, 413 and/or 416 have been mutated as compared to the corresponding positions in wild-type influenza HA, wherein the polypeptides comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 55-76.

2. Influenza HA stem domain polypeptide according to claim 1, wherein the polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 55, SEQ ID NO: 66 and SEQ ID NO: 73.

3. A nucleic acid molecule encoding a polypeptide according to claim 1 or 2.

4. A vector comprising the nucleic acid molecule of claim 3.

5. A composition comprising the polypeptide of claim 1 or 2, and/or a nucleic acid molecule according to claim 3 and/or a vector according to claim 4.

6. Influenza HA stem domain polypeptide according to claim 1 or 2, and/or a nucleic acid molecule according to claim 3, and/or a composition according to claim 5 for use as a medicament, in particular for use as a vaccine.

7. Influenza HA stem domain polypeptide according to claim 1 or 2, and/or a nucleic acid molecule according to claim 3, for use in inducing an immune response against influenza HA protein.

8. Influenza HA stem domain polypeptide according to claim 1 or 2, and/or a nucleic acid molecule according to claim 3, for use in the prophylaxis and/or treatment of influenza infection.