CLAIMS

1. A humanized antibody or a functional variant thereof, wherein the variable part of the light chain of said antibody comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 11, SEQ ID NO: 13 and SEQ ID NO: 14 comprising the CDR regions V_L CDR1 of SEQ ID NO: 12, V_L CDR2 SEQ ID NO: 9 and V_L CDR3 of SEQ ID NO: 10 in the light chain; and wherein the variable part of the heavy chain of said antibody comprises the CDR regions V_H CDR1: SEQ ID NO: 25, V_H CDR2: SEQ ID NO: 26; and V_H CDR3: SEQ ID NO: 20;

or

wherein the variable part of the light chain comprises the amino acid sequence of SEQ ID NO: 28 comprising the CDR regions V_L CDR1 of SEQ ID NO: 29, V_L CDR2 SEQ ID NO: 30 and V_L CDR3 of SEQ ID NO: 31 in the light chain; and wherein the variable part of the heavy chain of said antibody comprises the CDR regions V_H CDR1: SEQ ID NO: 33, V_H CDR2: SEQ ID NO: 34; and V_H CDR3: SEQ ID NO: 35.

2. The humanized antibody of claim 1, wherein the variable part of the light chain comprises the amino acid sequence of SEQ ID NO: 11.

3. The humanized antibody of claim 1, wherein the variable part of the light chain comprises the amino acid sequence of SEQ ID NO: 13.

4. The humanized antibody of claim 1, wherein the variable part of the light chain comprises the amino acid sequence of SEQ ID NO: 14.

5. The humanized antibody of claim 1, wherein the variable part of the heavy chain comprises the amino acid sequence of SEQ ID NO: 24.

6. The humanized antibody of claim 1, wherein the variable part of the heavy chain comprises the amino acid sequence of SEQ ID NO: 27.

7. The humanized antibody of claim 1, wherein the variable part of the heavy chain comprises the amino acid sequence of SEQ ID NO: 32.

8. The humanized antibody according to claim 1, having a human IgG1 Fc region which comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 73 and SEQ ID NO: 74.

9. The humanized antibody according to claim 1, having a human IgG1 Fc region which comprises the amino acid sequence of SEQ ID NO: 74.

10. The humanized antibody according to claim 1, wherein the variable part of the light chain comprises the amino acid sequence of SEQ ID NO: 14; and having a variable part of a heavy chain which comprises the amino acid sequence of SEQ ID NO: 27; and having a human IgG1 Fc region which comprises the amino acid sequence of SEQ ID NO: 74.

11. The humanized antibody according to claim 1, having a variable part of a light chain, a variable part of a heavy chain, and a human IgG1 Fc region, wherein:

- the variable part of the light chain comprises the amino acid sequence of SEQ ID NO: 14; and
- the variable part of the heavy chain comprises the amino acid sequence of SEQ ID NO: 27; and
- the human IgG1 Fc region comprises the amino acid sequence of SEQ ID NO: 74;
- the variable part of the light chain comprises the CDR regions V_L CDR1 of SEQ ID NO: 12, V_L CDR2 of SEQ ID NO: 9 and V_L CDR3 of SEQ ID NO: 10; and
- the variable part of the heavy chain comprises the CDR regions V_H CDR1 of SEQ ID NO: 25, V_H CDR2 of SEQ ID NO: 26 and V_H CDR3 of SEQ ID NO: 20.

12. A pharmaceutical composition comprising the humanized antibody according to claim 1.

13. The pharmaceutical composition of claim 12, further comprising a further biologically active substance and/or a pharmaceutically acceptable carrier and/or a diluent and/or an excipient.

14. The pharmaceutical composition of claim 13, wherein said further biologically active substance is selected from a neutron-transmission enhancer, psychotherapeutic drug, an acetylcholine esterase inhibitor, a calcium-channel blocker, a biogenic amine, a benzodiazepine tranquillizer, an acetylcholine synthesis, storage or release enhancer, an acetylcholine postsynaptic receptor agonist, a monoamine oxidase-A or -B inhibitor, a N-methyl- D-aspartate glutamate receptor antagonist, a non-steroidal anti-inflammatory drug, an antioxidant, and a serotonergic receptor antagonist.

15. The pharmaceutical composition of claim 13, wherein said further biologically active substance is selected from the group consisting of a compound effective against oxidative stress, an anti-apoptotic compound, a metal chelator, an inhibitor of DNA repair, an α-secretase activator, a β- and γ -secretase inhibitor, a tau protein, a neurotransmitter, a β-sheet breaker, an anti-inflammatory molecule, a cholinesterase inhibitor, a Ml agonist, a amyloid- or tau-burden modifying drug, a nutritive supplement, memantine, and a glutaminyl cyclase inhibitor.

16. The pharmaceutical composition of claim 14 wherein the further biologically active substance is acetylcholine esterase inhibitor.

17. The pharmaceutical composition of claim 15 wherein the further biologically active substance is a glutaminyl cyclase inhibitor.