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~~2. 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~~3. 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~~4. 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~~5. 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~~6. 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~~7. 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~~8. 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~~9. 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~~10. A pharmaceutical composition comprising the humanized antibody according to claim 1.

~~13~~11. The pharmaceutical composition of claim ~~12~~10, further comprising a further biologically active substance and/or a pharmaceutically acceptable carrier and/or a diluent and/or an excipient.

~~14~~12. The pharmaceutical composition of claim ~~13~~11, 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~~13. The pharmaceutical composition of claim ~~13~~12, 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~~14. The pharmaceutical composition of claim ~~14~~13 wherein the further biologically active substance is acetylcholine esterase inhibitor.

~~17~~15. The pharmaceutical composition of claim ~~15~~13 wherein the further biologically active substance is a glutaminyl cyclase inhibitor.