CLAIMS:

1. A pharmaceutical composition for the treatment of an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation, comprising a therapeutically effective amount of hC2 antibody.

2. The pharmaceutical composition of claim 1, wherein the hC2 antibody comprises a variant Fc region, wherein said variant Fc region comprises at least one amino acid modification relative to a wild-type Fc region.

3. The pharmaceutical composition of claim 2, wherein the variant Fc region is a variant IgG1 Fc region.

4. The pharmaceutical composition of claim 12, wherein the hC2 antibody comprises a D265A mutation in the Fc region.

5. The pharmaceutical composition of claim 1, wherein the ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation, is selected from the group consisting of cortical visual deficits, glaucoma, primary retinal degeneration, including macular degeneration, optic nerve drusen, optic neuropathy, optic neuritis, cataract, ocular amyloidosis and lattice dystrophy.

6. The pharmaceutical composition of claim 5, wherein the ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation, is glaucoma.

7. The pharmaceutical composition of claim 6, wherein the glaucoma is selected from the group consisting of chronic open-angle glaucoma (COAG), acute angle closure glaucoma (AACG), mixed or combined mechanism glaucoma, normal tension glaucoma, congenital glaucoma, secondary glaucoma, pigmentary glaucoma and exfoliative glaucoma.

8. The pharmaceutical composition of claim 1 for reducing the plaque load in the retinal ganglion cell layer of an animal suffering from an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation.

9. The pharmaceutical composition of claim 8, wherein the animal is a mammal.

10. The pharmaceutical composition of claim 9, wherein the mammal is a human.

11. The pharmaceutical composition of claim 1 for reducing the amount of plaques in the retinal ganglion cell layer of an animal suffering from an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation.

12. The pharmaceutical composition of claim 11, wherein the animal is a mammal.

13. The pharmaceutical composition of claim 12, wherein the mammal is a human.

14. The pharmaceutical composition of claim 1 for decreasing the total amount of soluble amyloid-β in the retinal ganglion cell layer of an animal.

15. The pharmaceutical composition of claim 14, wherein the animal is a mammal.

16. The pharmaceutical composition of claim 15, wherein the mammal is a human.

17. The pharmaceutical composition of claim 1 for preventing, treating or alleviating the effects of an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation, in an animal.

18. The pharmaceutical composition of claim 17, wherein the animal is a mammal.

19. The pharmaceutical composition of claim 18, wherein the mammal is a human.

20. A method for diagnosing an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation, in an animal comprising detecting the immunospecific binding of an antibody to an epitope of the amyloid protein in a sample which includes the steps of

(a) bringing the sample into contact with an antibody, which antibody binds an epitope of the amyloid protein;

(b) allowing the antibody to bind to the amyloid protein to form an immunological complex;

(c) detecting the formation of the immunological complex, particularly such that presence or absence of the immunological complex correlates with presence or absence of amyloid protein; and

(d) correlating the presence or absence of the immunological complex with the presence or absence of amyloid protein in the sample .

21. The method of claim 20, wherein the animal is a mammal.

22. The method of claim 21, wherein the mammal is a human.

23. A method for diagnosing a predisposition to an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation, in an animal comprising detecting the specific binding of an antibody to an epitope of the amyloid protein in a sample which includes the steps of

(a) bringing the sample into contact with the antibody, wherein the antibody binds a conformational epitope of the amyloid protein;

(b) allowing the antibody to bind to any amyloid protein in the sample to form an immunological complex;

(c) detecting the formation of the immunological complex;

(d) correlating the presence or absence of the immunological complex with the presence or absence of amyloid protein in the sample; and

(e) comparing the amount of said immunological complex to a normal control value,

wherein an increase in the amount of said complex compared to a normal control value indicates that said patient is suffering from or is at risk of developing an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system.

24. The method of claim 23, wherein the animal is a mammal.

25. The method of claim 24, wherein the mammal is a human.

26. A method for monitoring minimal residual ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes

in the tissues of the visual system, such as neuronal degradation, in a patient following treatment with the pharmaceutical composition of claim 1, wherein said method comprises:

(a) bringing a sample contact with an antibody, which antibody binds an epitope of the amyloid protein;

(b) allowing the antibody to bind to the amyloid protein to form an immunological complex;

(c) detecting the formation of the immunological complex;

(d) correlating the presence or absence of the immunological complex with the presence or absence of amyloid protein in the sample; and

(e) comparing the amount of said immunological complex to a normal control value,

wherein an increase in the amount of said complex compared to a normal control value indicates that said patient still suffers from a minimal residual ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system.

27. The method of claim 26, wherein the patient is a mammal.

28. The method of claim 27, wherein the mammal is a human.

29. A method for predicting responsiveness of a patient being treated with the pharmaceutical composition of claim 1 comprising the steps of:

(a) bringing a sample into contact with an antibody, which antibody binds an epitope of the amyloid protein;

(b) allowing the antibody to bind to the amyloid protein to form an immunological complex;

(c) detecting the formation of the immunological complex;

(d) correlating the presence or absence of the immunological complex with the presence or absence of amyloid protein in the sample; and

(e) comparing the amount of said immunological complex before and after onset of the treatment,

wherein a decrease in the amount of said immunological complex indicates that said patient has a high potential of being responsive to the treatment.

30. The method of claim 29, wherein the patient is a mammal.

31. The method of claim 30, wherein the mammal is a human.

32. The pharmaceutical composition of claim 1 for retaining or decreasing ocular pressure in the eyes of an animal suffering from an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation.

33. The pharmaceutical composition of claim 32, wherein the animal is a mammal.

34. The pharmaceutical composition of claim 33, wherein the mammal is a human.

35. Use of the pharmaceutical composition of claim 1 in the preparation of a medicament for reducing the plaque load in the retinal ganglion cell layer of an animal suffering from an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation.

36. Use of the pharmaceutical composition of claim 1 in the preparation of a medicament for reducing the amount of plaques in the retinal ganglion cell layer of an animal suffering from an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with

amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation.

37. Use of the pharmaceutical composition of claim 1 in the preparation of a medicament for decreasing the total amount of soluble amyloid-β in the retinal ganglion cell layer of an animal.

38. Use of the pharmaceutical composition of claim 1 in the preparation of a medicament for preventing, treating or alleviating the effects of an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation, in an animal.

39. Use of the pharmaceutical composition of claim 1 in the preparation of a medicament for retaining or decreasing ocular pressure in the eyes of an animal suffering from an ocular disease associated with pathological abnormalities/changes in the tissues of the visual system, particularly associated with amyloid-beta-related pathological abnormalities/changes in the tissues of the visual system, such as neuronal degradation.

CLAIMS:

1. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for reducing the plaque load in the retinal ganglion cell layer of an animal suffering from cortical visual deficits, glaucoma, optic nerve drusen, optic neuritis, cataract, ocular amyloidosis, or lattice dystrophy, wherein the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 1, (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 2, (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3, (d) a serine in Kabat position 94, and (e) a leucine in Kabat position 47; and

(ii) a light chain variable region (LCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 4, (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5 or the amino acid sequence of SEQ ID NO: 5 with one amino acid substitution, and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238, 239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

2. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for reducing the amount of plaques in the retinal ganglion cell layer of an animal suffering from cortical visual deficits, glaucoma, optic nerve drusen, optic neuritis, cataract, ocular amyloidosis, or lattice dystrophy, wherein the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 1, (b) a CDR2 comprising the amino acid sequence of

SEQ ID NO: 2, (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3, (d) a serine in Kabat position 94, and (e) a leucine in Kabat position 47; and

(ii) a light chain variable region (LCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 4, (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5 or the amino acid sequence of SEQ ID NO: 5 with one amino acid substitution, and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238, 239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

3. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for decreasing the total amount of soluble amyloid-β in the retinal ganglion cell layer of an animal suffering from cortical visual deficits, glaucoma, optic nerve drusen, optic neuritis, cataract, ocular amyloidosis, or lattice dystrophy, wherein the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 1, (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 2, (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3, (d) a serine in Kabat position 94, and (e) a leucine in Kabat position 47; and

(ii) a light chain variable region (LCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 4, (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5 or the amino acid sequence of SEQ ID NO: 5 with one amino acid substitution, and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238,

239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

4. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for preventing, treating or alleviating one or more effects of cortical visual deficits, glaucoma, optic nerve drusen, optic neuritis, cataract, ocular amyloidosis, or lattice dystrophy in an animal, wherein the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 1, (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 2, (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3, (d) a serine in Kabat position 94, and (e) a leucine in Kabat position 47; and

(ii) a light chain variable region (LCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 4, (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5 or the amino acid sequence of SEQ ID NO: 5 with one amino acid substitution, and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238, 239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

5. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for retaining or decreasing ocular pressure in the eyes of an animal suffering from cortical visual deficits, glaucoma, optic nerve drusen, optic neuritis, cataract, ocular amyloidosis, or lattice dystrophy, wherein the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid

sequence of SEQ ID NO: 1, (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 2, (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3, (d) a serine in Kabat position 94, and (e) a leucine in Kabat position 47; and

(ii) a light chain variable region (LCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 4, (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5 or the amino acid sequence of SEQ ID NO: 5 with one amino acid substitution, and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238, 239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

6. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for reducing the plaque load in the retinal ganglion cell layer of an animal suffering from an ocular disease associated with an amyloid-beta-related pathological abnormality or change in the tissues of the visual system provided that the ocular disease is not macular degeneration or optic neuropathy, wherein the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 1; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 2; (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3; and a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO: 12; and

(ii) an LCVR comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 4; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5, the amino acid sequence RVSNRFS, or the amino acid sequence

KVSSRFS; and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6; and an HCVR comprising the amino acid sequence of SEQ ID NO: 15,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238, 239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

7. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for reducing the amount of plaques in the retinal ganglion cell layer of an animal suffering from an ocular disease associated with an amyloid-beta-related pathological abnormality or change in the tissues of the visual system provided that the ocular disease is not macular degeneration or optic neuropathy, wherein the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 1; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 2; (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3; and a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO: 12; and

(ii) an LCVR comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 4; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5, the amino acid sequence RVSNRFS, or the amino acid sequence KVSSRFS; and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6; and an HCVR comprising the amino acid sequence of SEQ ID NO: 15,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238, 239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

8. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for decreasing the total amount of soluble amyloid-β in the retinal ganglion cell layer of an animal suffering from an ocular disease associated with an amyloid-beta-related pathological abnormality or change in the tissues of the visual system provided that the ocular disease is not macular degeneration or optic neuropathy, wherein the the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 1; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 2; (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3; and a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO: 12; and

(ii) an LCVR comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 4; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5, the amino acid sequence RVSNRFS, or the amino acid sequence KVSSRFS; and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6; and an HCVR comprising the amino acid sequence of SEQ ID NO: 15,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238, 239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

9. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for preventing, treating or alleviating one or more effects of an ocular disease associated with an amyloid-beta-related pathological abnormality or change in the tissues of the visual system in an animal provided that the ocular disease is not macular degeneration or optic neuropathy, wherein the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 1; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 2; (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3; and a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO: 12; and

(ii) an LCVR comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 4; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5, the amino acid sequence RVSNRFS, or the amino acid sequence KVSSRFS; and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6; and an HCVR comprising the amino acid sequence of SEQ ID NO: 15,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238, 239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

10. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for retaining or decreasing ocular pressure in the eyes of an animal suffering from an ocular disease associated with an amyloid-beta-related pathological abnormality or change in the tissues of the visual system provided that the ocular disease is not macular degeneration or optic neuropathy, wherein the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 1; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 2; (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3; and a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO: 12; and

(ii) an LCVR comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of

SEQ ID NO: 4; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5, the amino acid sequence RVSNRFS, or the amino acid sequence KVSSRFS; and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6; and an HCVR comprising the amino acid sequence of SEQ ID NO: 15,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238, 239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

11. Use of a humanized antibody or a functional fragment thereof which recognizes and binds to beta-amyloid protein in the preparation of a medicament for the treatment of cortical visual deficits, glaucoma, optic nerve drusen, optic neuritis, cataract, ocular amyloidosis, or lattice dystrophy, wherein the humanized antibody or functional fragment thereof comprises:

(i) a heavy chain variable region (HCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 1, (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 2, and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 3; and

(ii) a light chain variable region (LCVR) comprising, integrated into human- or primate-derived framework regions: (a) a CDR1 comprising the amino acid sequence of SEQ ID NO: 4; (b) a CDR2 comprising the amino acid sequence of SEQ ID NO: 5 or the amino acid sequence of SEQ ID NO: 5 with one amino acid substitution; and (c) a CDR3 comprising the amino acid sequence of SEQ ID NO: 6,

wherein the humanized antibody or functional fragment thereof comprises an IgG1 Fc region which comprises an amino acid modification at any one or more of amino acid positions 238, 239, 248, 249, 252, 254, 265, 268, 269, 270, 272, 278, 289, 292, 293, 294, 295, 296, 298, 301, 303, 322, 324, 327, 329, 333, 335, 338, 340, 373, 376, 382, 388, 389, 414, 416, 419, 434, 435, 437, 438 or 439 of the IgG1 Fc region.

12. The use according to any one of claims 1-11, wherein the humanized antibody or functional fragment thereof comprises a D265A mutation in the Fc region.

13. The use according to any one of claims 1-12, wherein the animal is a mammal.

14. The use according to claim 13, wherein the mammal is a human.

15. The use according to any one of claims 1-14, wherein the LCVR comprises the amino acid sequence of SEQ ID NO: 12 and the HCVR comprises the amino acid sequence of SEQ ID NO: 15.

16. The use according to any one of claims 1-14, wherein the light chain CDR2 comprises the amino acid sequence of SEQ ID NO: 5.

17. The use according to any one of claims 1-14, wherein the light chain CDR2 comprises the amino acid sequence RVSNRFS or the amino acid sequence KVSSRFS.

18. The use according to any one of claims 7-10, wherein the ocular disease associated with an amyloid-beta-related pathological abnormality or change in the tissues of the visual system is glaucoma.

19. The use according to claim 18, wherein the glaucoma is selected from the group consisting of chronic open-angle glaucoma (COAG), acute angle closure glaucoma (AACG), mixed or combined mechanism glaucoma, normal tension glaucoma, congenital glaucoma, secondary glaucoma, pigmentary glaucoma, and exfoliative glaucoma.

20. The use according to any one of claims 1-19, wherein the humanized antibody comprises the light chain of SEQ ID NO: 13.

21. The use according to any one of claims 1-19, wherein the LCVR of the humanized antibody or active fragment thereof comprises the amino acid Lys or Gln in Kabat position 45; and/or the amino acid Phe or Tyr in Kabat position 87, and/or the amino acid Lys or Arg in Kabat position 50, and/or the amino acid Asn or Ser in Kabat position 53.