CLAIMS

[Claim 1]

Use of an agent in inhibiting iron uptake into cells, wherein the agent comprises an antibody which recognizes the amino acids at positions 629 to 633 of a human transferrin receptor.

[Claim 2]

The use according to claim 1, wherein the antibody inhibits the binding between a human transferrin and a human transferrin receptor, so as to inhibit iron uptake into cells.

[Claim 3]

The use according to claim 1 or 2, wherein the antibody has a heavy chain first complementarity determining region (VH CDR1), a heavy chain second complementarity determining region (VH CDR2), and a heavy chain third complementarity determining region (VH CDR3), which are as set forth in SEQ ID NOs: 1, 2, and 3, respectively, and a light chain first complementarity determining region (VL CDR1), a light chain second complementarity determining region (VL CDR2), and a light chain third complementarity determining region (VL CDR3), which are as set forth in SEQ ID NOs: 4, 5, and 6, respectively.

[Claim 4]

The use according to any one of claims 1 to 3, wherein the antibody has a heavy chain as set forth in SEQ ID NO: 7 and a light chain as set forth in SEQ ID NO: 8.

[Claim 5]

The use according to any one of claims 1 to 4, wherein the antibody is a human antibody or a humanized antibody.

[Claim 6]

The use according to any one of claims 1 to 5, wherein the antibody is an antibody fragment selected from the group consisting of Fab, Fab', $F(ab')_2$, a single-chain antibody (scFv), a dimerized V region (Diabody), a disulfide stabilized V region (dsFv), and a peptide comprising CDR.

[Claim 7]

Use of an agent inhibiting binding between a human transferrin and a human transferrin receptor, wherein the agent comprises an antibody which recognizes the amino acids at positions 629 to 633 of a human transferrin receptor.

[Claim 8]

The use according to claim 8, wherein the antibody has a heavy chain first complementarity determining region (VH CDR1), a heavy chain second complementarity determining region (VH CDR2), and a heavy chain third complementarity determining region (VH CDR3), which are as set forth in SEQ ID NOs: 1, 2, and 3, respectively, and a light chain first complementarity determining region (VL CDR1), a light chain second complementarity determining region (VL CDR2), and a light chain third complementarity determining region (VL CDR3), which are as set forth in SEQ ID NOs: 4, 5, and 6, respectively.

[Claim 9]

The use according to claim 8 or 9, wherein the antibody has a heavy chain as set forth in SEQ ID NO: 7 and a light chain as set forth in SEQ ID NO: 8.

[Claim 10]

The use according to any one of claims 8 to 10, wherein the antibody is a human antibody or a humanized antibody.

[Claim 11]

The use according to any one of claims 8 to 11, wherein the antibody is an antibody fragment selected from the group consisting of Fab, Fab', $F(ab')_2$, a single-chain antibody (scFv), a dimerized V region (Diabody), a disulfide stabilized V region (dsFv), and a peptide comprising CDR.

[Claim 12]

Use of an agent in the manufacture of a medicament for the treatment of a disease or a symptom associated with excessive iron uptake into cells, wherein the agent comprises an antibody which recognizes the amino acids at positions 629 to 633 of a human transferrin receptor.

[Claim 13]

The use according to claim 12, wherein the antibody inhibits the binding between a human transferrin and a human transferrin receptor, so as to inhibit iron uptake into cells.

[Claim 14]

The use according to claim 12 or 13, wherein the antibody has a heavy chain first complementarity determining region (VH CDR1), a heavy chain second complementarity determining region (VH CDR2), and a heavy chain third complementarity determining region (VH CDR3), which are as set forth in SEQ ID NOs: 1, 2, and 3, respectively, and a light chain first complementarity determining region (VL CDR1), a light chain second complementarity determining region (VL CDR2), and a light chain third complementarity

determining region (VL CDR3), which are as set forth in SEQ ID NOs: 4, 5, and 6, respectively.

[Claim 15]

The use according to any one of claims 12 to 14, wherein the antibody has a heavy chain as set forth in SEQ ID NO: 7 and a light chain as set forth in SEQ ID NO: 8.

[Claim 16]

The use according to any one of claims 12 to 15, wherein the antibody is a human antibody or a humanized antibody.

[Claim 17]

The use according to any one of claims 12 to 16, wherein the antibody is an antibody fragment selected from the group consisting of Fab, Fab', $F(ab')_2$, a single-chain antibody (scFv), a dimerized V region (Diabody), a disulfide stabilized V region (dsFv), and a peptide comprising CDR.