CLAIMS

[Claim 1]

An immunological measurement method for leucine-rich α2 glycoprotein (LRG) in a ~~biologically derived~~blood sample comprising:

bringing the sample into contact with at least first insoluble carrier particles carrying a first anti-LRG monoclonal antibody and second insoluble carrier particles carrying a second anti-LRG monoclonal antibody in a liquid phase~~.~~, and

optically measuring a degree of agglutination of a complex of LRG and the first and the second insoluble carrier particles carrying the anti-LRG monoclonal antibodies,

wherein the first and the second insoluble carrier particles are latex particles having average particle sizes of 100 nm to 340 nm, respectively, and

wherein the first and the second insoluble carrier particles are latex particles having critical coagulation concentrations of 65 mM to 270 Mm, respectively.

~~[Claim 2]~~

~~The measurement method according to claim 1, wherein the insoluble carrier particles are latex particles having average particle sizes of 100 nm to 340 nm respective~~

~~[Claim 3]~~

~~The measurement method according to claim 1 or 2, wherein the insoluble carrier particles are latex particles having critical coagulation concentrations of 65 mM to 270 mM respectively.~~

[Claim ~~4~~2]

The measurement method according to ~~any one of claims 1 to 3~~claim 1, wherein the average particle sizes of the first insoluble carrier particles carrying the first anti-LRG monoclonal antibody and the second insoluble carrier particles carrying the second anti-LRG monoclonal antibody are the same.

[Claim ~~5~~3]

The measurement method according to ~~any one of claims 1 to 4~~claim 1 or 2, wherein the first insoluble carrier particles carrying the first anti-LRG monoclonal antibody and the second insoluble carrier particles carrying the second anti-LRG monoclonal antibody are contained in same amounts in the liquid phase.

[Claim ~~6~~4]

The measurement method according to any one of claims 1 to ~~5~~3, wherein the ~~biologically derived~~blood sample is serum.

[Claim ~~7~~5]

The measurement method according to any one of claims 1 to ~~6~~4, wherein the immunoagglutination assay is a method based on a homogeneous method.

[Claim ~~8~~6]

The measurement method according to any one of claims 1 to ~~7~~5, wherein the step of bringing the ~~biologically derived~~blood sample into contact with the first insoluble carrier particles carrying the first anti-LRG monoclonal antibody and the second insoluble carrier particles carrying the second anti-LRG monoclonal antibody in the liquid phase comprises following steps:

(1) bringing the sample and a first reagent containing a buffer into contact with each other in the liquid phase; and

(2) adding a second reagent containing the first insoluble carrier particles carrying the first anti-LRG monoclonal antibody and the second insoluble carrier particles carrying the second anti-LRG monoclonal antibody to the liquid phase after step (1).

~~[Claim 9]~~

~~The measurement method according to claim 8, wherein the salt concentration of the liquid phase of (1) is 700 to 900 mM.~~

~~[Claim 10]~~

~~The measurement method according to any one of claims 1 to 9 further comprising:~~

~~optically measuring a degree of agglutination of a complex of LRG and the insoluble carrier particles carrying the anti-LRG monoclonal antibodies~~

[Claim ~~11~~7]

The measurement method according to ~~claim 10~~any one of claims 1 to 6, wherein the step of optical measuring is a step of measuring an intensity of scattered light, an absorbance or an intensity of transmitted light with an optical device.

[Claim ~~12~~8]

A reagent for measuring LRG in a blood sample by an immunological measurement method comprising:

at least first insoluble carrier particles carrying a first anti-LRG monoclonal antibody and second insoluble carrier particles carrying a second anti-LRG monoclonal antibody~~.~~,

wherein the first and the second insoluble carrier particles are latex particles having average particle sizes of 100 nm to 340 nm, respectively,

wherein the first and the second insoluble carrier particles are latex particles having critical coagulation concentrations of 65 mM to 270 mM, respectively.

~~[Claim 13]~~

~~The measurement reagent according to claim 12, wherein the insoluble carrier particles are latex particles having average particle sizes of 100 nm to 340 nm respectively[Claim 14]~~

~~The measurement reagent according to claim 12 or 13, wherein the insoluble carrier particles are latex particles having critical coagulation concentrations of 65 mM to 270 mM respectively.~~

[Claim ~~15~~9]

The measurement reagent according to ~~any one of claims 12 to 14~~claim 8, wherein the average particle sizes of the first insoluble carrier particles carrying the first anti-LRG monoclonal antibody and the second insoluble carrier particles carrying the second anti-LRG monoclonal antibody are the same.

[Claim ~~16~~10]

The measurement reagent according to ~~any one of claims 12 to 15~~claim 8 or 9, wherein the first insoluble carrier particles carrying the first anti-LRG monoclonal antibody and the second insoluble carrier particles carrying the second anti-LRG monoclonal antibody are contained in same amounts.

~~[Claim 17]~~

~~The measurement reagent according to any one of claims 12 to 16, wherein the biologically derived sample is serum.~~

~~[Claim 18]~~

~~The measurement reagent according to any one of claims 12 to 17, wherein the immunoagglutination assay is a method based on a homogeneous method.~~

[Claim ~~19~~11]

A reagent kit for measuring LRG in a blood sample by an immunoagglutination assay comprising:

(1) a first reagent containing a buffer and

(2) a second reagent containing first insoluble carrier particles carrying a first anti-LRG monoclonal antibody and second insoluble carrier particles carrying a second anti-LRG monoclonal antibody~~.~~,

wherein the first and the second insoluble carrier particles are latex particles having average particle sizes of 100 nm to 340 nm, respectively,

wherein the first and the second insoluble carrier particles are latex particles having critical coagulation concentrations of 65 mM to 270 mM, respectively.

~~[Claim 20]~~

~~The reagent kit according to claim 19, wherein the insoluble carrier particles are latex particles having average particle sizes of 100 nm to 340 nm respectively~~

~~[Claim 21]~~

~~The reagent kit according to claim 19 or 20, wherein the~~

~~insoluble carrier particles are latex particles having critical coagulation concentrations of 65 mM to 270 mM respectively.~~

[Claim ~~22~~12]

The reagent kit according to ~~any one of claims 19 to 21~~claim 11, wherein the average particle sizes of the first insoluble carrier particles carrying the first anti-LRG monoclonal antibody and the second insoluble carrier particles carrying the second anti-LRG monoclonal antibody are the same.

[Claim ~~23~~13]

The reagent kit according to ~~any one of claims 19 to 22~~claim 11 or 12, wherein the second reagent of (2) contains the first insoluble carrier particles carrying the first anti-LRG monoclonal antibody and the second insoluble carrier particles carrying the second anti-LRG monoclonal antibody in same amounts.

~~[Claim 24]~~

~~The reagent kit according to any one of claims 19 to 23, wherein the first reagent of (1) contains a salt in such an amount that a salt concentration of a reaction liquid phase becomes 700 to 900 mM.~~

[Claim ~~25~~14]

The reagent kit according to any one of claims ~~19~~ 11 to

~~24~~ 13 further comprising:

(3) LRG as a standard antigen and/or a control.