Claims

1. A screening method for a prophylactic or therapeutic agent for a kidney disease, comprising the following steps:
(1) a step of providing a non-human mammal deficient in Apoptosis Inhibitor of Macrophage (AIM) expression, wherein the non-human mammal has been administered with a test substance under conditions performing unilateral ureteral obstruction, transient kidney ischemia/reperfusion after uninephrectomy or bilateral transient kidney ischemia/reperfusion,
(2) a step of observing any one or more items of the following properties of the non-human mammal deficient in AIM expression:
(i) accumulation of necrotic renal tubule cells and renal parenchymal fibrosis,
(ii) disintegration and fibrosis of glomerular structure,
(iii) expression level of inflammatory cytokine in the kidney,
(iv) ratio of macrophage in the kidney,
(v) BUN value,
(vi) survival rate,
(3) a step of selecting a test substance that improves any one or more items of the aforementioned properties by comparison with those in the case of a non-human mammal deficient in AIM expression that has not been administered with the test substance, wherein the kidney disease is acute renal failure, chronic nephritis, chronic renal failure, nephrotic syndrome, diabetic nephropathy, nephrosclerosis, IgA nephropathy, hypertensive nephropathy, nephropathy associated with a collagen disease or IgM nephropathy.

2. An evaluation method of a prophylactic or therapeutic effect of a prophylactic or therapeutic agent for kidney diseases, comprising the following steps:
(1) a step of providing a non-human mammal deficient in AIM expression, wherein the non-human mammal has been administered

with a prophylactic or therapeutic agent for kidney diseases under conditions performing unilateral ureteral obstruction, transient kidney ischemia/reperfusion after uninephrectomy or bilateral transient kidney ischemia/reperfusion,

(2) a step of observing any one or more items of the following properties of the non-human mammal deficient in AIM expression:

(i) accumulation of necrotic renal tubule cells and renal parenchymal fibrosis,

(ii) disintegration and fibrosis of glomerular structure,

(iii) expression level of inflammatory cytokine in the kidney,

(iv) ratio of macrophage in the kidney,

(v) BUN value,

(vi) survival rate,

(3) a step of evaluating an effect of a prophylactic or therapeutic agent for kidney diseases by comparison of any one or more items of the aforementioned properties with those in the case of a non-human mammal deficient in AIM expression that has not been administrated with the prophylactic or therapeutic agent for kidney diseases, wherein the kidney disease is acute renal failure, chronic nephritis, chronic renal failure, nephrotic syndrome, diabetic nephropathy, nephrosclerosis, IgA nephropathy, hypertensive nephropathy, nephropathy associated with a collagen disease or IgM nephropathy.

3. A method of predicting prognosis of a patient with a kidney disease, comprising

1) a step of measuring AIM concentration of blood or serum sample of healthy human and test subject,

(2) a step of comparing the AIM concentration measured in healthy human and AIM concentration measured in test subject, and

(3) a step of judging that the chronic kidney disease of the test subject is highly possibly degraded in the future when the AIM concentration of the test subject is lower than that of healthy human,

wherein the kidney disease is acute renal failure, nephrotic syndrome, nephrosclerosis, IgA nephropathy, hypertensive nephropathy, nephropathy associated with a collagen disease or IgM nephropathy.

4. The method according to claim 3, wherein a measurement method of the AIM concentration is an immunological method using an anti-AIM antibody.

5. A test method of acute renal failure, comprising 1) a step of measuring AIM concentration of urine sample of healthy human and test subject,
(2) a step of comparing AIM concentration measured in healthy human and AIM concentration measured in test subject, and
(3) a step of judging that the test subject is affected with acute renal failure when the AIM concentration of the test subject is significantly higher than that of healthy human.

6. The test method according to claim 5, wherein the measurement method of the AIM concentration is an immunological method using an anti-AIM antibody.

7. Use of AIM or a partial peptide thereof having an activity of substantially the same quality as AIM or a nucleic acid comprising a base sequence encoding the same in the manufacture of a medicament for the prophylaxis or treatment of a kidney disease,
wherein the kidney disease is acute renal failure, chronic nephritis, chronic renal failure, nephrotic syndrome, diabetic nephropathy, nephrosclerosis, IgA nephropathy, hypertensive nephropathy, nephropathy associated with a collagen disease or IgM nephropathy.

8. The use according to claim 7, wherein the kidney disease is acute renal failure or chronic renal failure.

9. The use according to claim 7 or 8, wherein the subject of prophylaxis or treatment is a human.

10. The use according claims 7 or 8, wherein the subject of prophylaxis or treatment is a cat.

11. The use according to claim 10, wherein the AIM or the partial peptide thereof having an activity of substantially the same quality as AIM binds to cat IgM.

12. The use according to claim 11, wherein the AIM or the partial peptide thereof that binds to cat IgM contains an Scavenger Receptor Cysteine-Rich(SRCR3) domain of mouse-derived AIM.