CLAIMS

1. A liposome preparation containing a population of liposomes containing a CD1d ligand compound, wherein the average particle size of the population of liposomes is 90 to 110 nm, and the polydispersity index of the particle size distribution is 0.2 or less.

2. The liposome preparation according to claim 1, wherein the average particle size is 92.9 to 101.0 nm.

3. The liposome preparation according to claim 1 or 2, wherein the polydispersity index of the particle size distribution is 0.133 or less.

4. The liposome preparation according to any one of claims 1 to 3, wherein the number of liposomes having a particle size of less than 50 nm is 10% or less of the total population of liposomes.

5. The liposome preparation according to any one of claims 1 to 4, wherein the number of liposomes with a particle size of more than 450 nm is 10% or less of the total population of liposomes.

6. The liposome preparation according to any one of claims 1 to 5, wherein the average particle size is maintained at 90 to 110 nm for at least 1 month under the conditions of a temperature of 25°C and a relative humidity of 60% RH.

7. The liposome preparation according to any one of claims 1 to 6, wherein the CD1d ligand compound is α-galactosylceramide.

8. The liposome preparation according to claim 7, wherein the α-galactosylceramide is (2S,3S,4R)-1-o-(α-D-galactopyranosyl)-2-(N-hexacosanoylamino)-1,3,4-octadecanetriol.

9. The liposome preparation according to any one of claims 1 to 8, wherein the population of liposomes is contained as a liposome suspension.

10. The liposome preparation according to claim 9, wherein the pH of the liposome suspension is 5.8 to 6.8.

11. The liposome preparation according to any one of claims 1 to 8, wherein the population of liposomes is contained as a lyophilized product.

12. The liposome preparation according to any one of claims 1 to 11, which is for injection administration.

~~13. The liposome preparation according to any one of claims 1 to 12, which is for prevention or treatment of graft-versus-host disease.~~

~~14. The liposome preparation according to claim 13, wherein the graft-versus-host disease is caused by allogeneic hematopoietic stem cell transplantation.~~

~~15. The liposome preparation according to any one of claims 1 to 12, which is for~~

prevention or treatment of organ transplant rejection.

16. The liposome preparation according to claim 15, wherein the organ transplant is a transplant of an allogeneic organ or cell.

17. The liposome preparation according to claim 15, wherein the organ transplant is a transplant of a xenogeneic organ or cell.

18. A method for reducing a risk of developing graft-versus-host disease in a subject having the risk of developing graft-versus-host disease, comprising administering an effective amount of the liposome preparation according to any one of claims 1 to 12 to the subject.

19. The method according to claim 18, wherein the subject having the risk of developing graft-versus-host disease is a subject who has received an allogeneic tissue or cell transplant or is scheduled to receive an allogeneic tissue or cell transplant.

20. A method for treating graft-versus-host disease in a subject who has developed graft-versus-host disease, comprising administering an effective amount of the liposome preparation according to any one of claims 1 to 12 to the subject.

21. The method according to any one of claims 18 to 20, wherein the graft-versus-host disease is caused by allogeneic hematopoietic stem cell transplantation.

22. A method for reducing a risk of developing organ transplant rejection in a subject having the risk of developing organ transplant rejection, comprising

~~administering an effective amount of the liposome preparation according to any one of claims 1 to 12 to the subject.~~

~~23. The method according to claim 22, wherein the subject having the risk of developing organ transplant rejection is a subject who has received a transplant of an allogeneic or xenogeneic organ or cell or is scheduled to receive a transplant of an allogeneic or xenogeneic organ or cell.~~

~~24. A method of treating an organ transplant rejection in a subject who has developed the organ transplant rejection, comprising administering an effective amount of the liposome preparation of any one of claims 1 to 12 to the subject.~~

~~25. The method according to any one of claims 22 to 24, wherein the organ transplant is a transplant of an allogeneic organ or cell.~~

~~26. The method according to any one of claims 22 to 24, wherein the organ transplant is a transplant of a xenogeneic organ or cell.~~

~~27~~13. The liposome preparation according to any one of claims 1 to 12 for use in the prevention or treatment of graft-versus-host disease.

~~28~~14. The liposome preparation according to claim ~~27~~13, wherein the graft-versus-host disease is caused by allogeneic hematopoietic stem cell transplantation.

~~29~~15. The liposome preparation according to any one of claims 1 to 12 for use in the prevention or treatment of organ transplant rejection.

~~30~~16. The liposome preparation according to claim ~~29~~15, wherein the organ transplant is a transplant of an allogeneic organ or cell.

~~31~~17. The liposome preparation according to claim ~~29~~15, wherein the organ transplant is a transplant of a xenogeneic organ or cell.

~~32~~18. Use of the liposome preparation according to any one of claims 1 to 12 in the manufacture of a medicament for the prevention or treatment of graft-versus-host disease.

~~33~~19. The use according to claim ~~32~~18, wherein the graft-versus-host disease is caused by allogeneic hematopoietic stem cell transplantation.

~~34~~20. Use of the liposome preparation according to any one of claims 1 to 12 in the manufacture of a medicament for the prevention or treatment of organ transplant rejection.

~~35~~21. The use according to claim ~~34~~20, wherein the organ transplant is a transplant of an allogeneic organ or cell.

~~36~~22. The use according to claim ~~34~~20, wherein the organ transplant is a transplant of a xenogeneic organ or cell.