

CLAIMS

1. A method for identifying a peptide comprising a T cell epitope, wherein said method comprises the steps of:
 - 5 (i) contacting a complex of major histocompatibility complex class II (MHCII) and Class II-associated invariant chain peptide (CLIP) (MHCII-CLIP) with a peptide,
 - (ii) adding T cells specific for an antigen; and
 - (iii) measuring activation of said T cells.
- 10 2. A method for testing the ability of a peptide to bind to MHCII without having undergone processing, wherein said method comprises the steps of:
 - (i) contacting a complex of major histocompatibility complex class II (MHCII) and Class II-associated invariant chain peptide (CLIP) (MHCII-CLIP) with a peptide;
 - (ii) adding T cells specific for an antigen; and
 - 15 (iii) measuring activation of said T cells.
3. A method according to claim 1 or 2 wherein the T cells are primary T cells, T cell clones or T cell hybridomas, or are from a T cell line.
4. A method according to claim 3 wherein the T cells are from a T cell line.
5. A method according to claim 3 wherein the T cells are from peripheral blood
20 mononuclear cells (PBMCs) isolated from a subject.
6. A method according to any of claims 1-5 wherein MHCII is Human Leukocyte Antigen – DR (HLA-DR) isotype 2 (HLA-DR2), HLA-DR3 or HLA-DR4.
7. A method according to claim 6 wherein MHCII is HLA-DR2.
8. A method according to any of claims 1-7 wherein T cell activation is measured
25 by measuring cytokine secretion and/or T cell proliferation.

9. A method according to claim 8 wherein T cell activation is measured by measuring interleukin 2 (IL2) secretion and/or interferon gamma (IFN γ) secretion.
10. A method according to claim 9 wherein T cell activation is measured by measuring IL2 secretion.
- 5 11. A method according to any of claims 8-10 wherein T cell activation is measured by measuring ^3H -thymidine incorporation, BrdU incorporation, EdU incorporation or Ki67 levels.
12. A method according to any of claims 1-11 wherein CLIP comprises the sequence PVSKMRMATPLLMQA (SEQ ID No. 1).
- 10 13. The method according to any of claims 1-12 wherein the method is an *in vitro* method.
14. A method according to claim 13 wherein MHCII-CLIP is affixed to a culture plate.
15. A method according to any of claims 1-14 wherein MHCII-CLIP comprises
15 biotin.
16. A method according to claim 15 wherein MHCII-CLIP is affixed to a culture plate by biotin-neutravidin.
17. Use of CLIP in the method according to any of claims 1-16.
18. A use according to claim 17 wherein CLIP comprises the sequence
20 PVSKMRMATPLLMQA (SEQ ID No. 1).
19. A method for testing the binding affinity of a peptide for MHCII, wherein said method comprises the steps of:
- (i) adding a test peptide to MHCII,
 - (ii) adding a control peptide
 - 25 (iii) adding T cells specific for the control peptide; and
 - (iii) measuring T cell activation.

20. A method according to claim 19 wherein the MHCII is on antigen-presenting cells (APCs).
21. A method according to claim 20 wherein the APCs are fixed.
22. A method according to claim 20 wherein the APCs are fresh.
- 5 23. A method according to any of claims 19-22 wherein the APCs are primary APCs or from an APC line.
24. A method according to claim 23 wherein the APCs are MGAR cells.
25. A method according to claim 23 wherein the APCs are VAVY cells.