

CLAIMS

1. An isolated peptide of between 12 and 100 amino acids comprising a CD1d binding peptide epitope of an antigen with a [FWYHT]-X(2)-[VILM]-X(2)-[FWYHT] [SEQ ID NO: 60] sequence motif, and immediately adjacent to or separated by at most 7 amino acids from the N-terminus of the epitope a [HW]-X(0,2)-C-X(2)-[CST] ([SEQ ID NO: 1], [SEQ ID NO: 2], [SEQ ID NO: 3]) redox motif sequence, in which the antigen is an autoantigen or allergen.
2. A peptide according to Claim 1, with the proviso that the antigen does not contain in its sequence the CD1d binding peptide motif within a distance of 10 amino acids of the redox motif.
3. A peptide according to Claim 1, with the proviso that the antigen does not contain in its sequence the redox motif within a distance of 10 amino acids of the epitope.
4. A peptide according to Claim 1, 2 or 3, in which the CD1d binding peptide sequence motif is [FWY]-X(2)-[VILM]-X(2)-[FWY] [SEQ ID NO: 63].
5. A peptide according to any preceding claim, in which the redox motif is [HW]-C-X(2)-[CST] [SEQ ID NO: 1].
6. A peptide according to any preceding claim, in which the redox motif is [HW]-C-X(2)-C [SEQ ID NO: 7].
7. A peptide according to any preceding claim, in which the redox motif is H-C-X(2)-C [SEQ ID NO: 48].
8. A peptide according to any preceding claim, in which the peptide has a length of between 12 and 50 amino acids.
9. A peptide according to any preceding claim, in which the epitope is a myelin oligodendrocytic glycoprotein (MOG) NKT epitope.
10. A peptide according to Claim 9, in which the MOG NKT epitope is separated from the N-terminal redox motif by a linker sequence of 2 amino acids, preferably in which the epitope and the linker form the amino acid sequence GGFLRVPCWKI.
11. A peptide according to any of Claims 1 to 6, in which the peptide comprises a sequence selected from the group consisting of HCGPCGGFLRVPCWKI [SEQ ID NO : 87];

WCGPCGGFLRVPCWKI [SEQ ID NO: 88], HCHGCGGFLRVPCWKI, and WCHGCGGFLRVPCWKI.

12. A peptide according to any of Claims 1 to 5, in which the redox motif sequence is H-C-X(2)-[CST] [SEQ ID NO: 101].

5 13. A method for obtaining a population of NKT cells which are cytolytic against cells presenting an antigen with a CD1d binding peptide epitope, the method comprising the steps of:

providing peripheral blood cells;

contacting the cells *in vitro* with a peptide according to any preceding claim; and

10 expanding the cells in the presence of IL-2.

14. A method for preparing a peptide comprising the step of:

identifying within an autoantigen or allergen a sequence with an [FWYHT]-X(2)-[VILM]-X(2)-[FWYHT] [SEQ ID NO: 60] sequence motif;

15 preparing a peptide of between 12 and 100 amino comprising the above identified sequence and immediately adjacent to or separated by at most 7 amino acids from the N-terminus of the epitope a [HW]-X(0,2)-C-X(2)-[CST] ([SEQ ID NO: 1], [SEQ ID NO: 2], [SEQ ID NO: 3]) redox motif sequence.