CLAIMS

~~1. An antibody directed against ICOS or a derivative thereof which:~~

- ~~neutralizes ICOS engagement on Treg by inhibiting the fixation between ICOS and ICOS-L; and~~
- ~~abrogates proliferation of Treg induced by plasmacytoid dendritic cells.~~

1~~2~~. An antibody directed against ICOS, wherein said antibody is selected from the group consisting of ~~Icos 145-1 and~~ Icos 314-8, ~~respectively~~ obtainable from the hybridoma deposited at the CNCM on July 2, 2009 under the accession numbers ~~CNCM I-4179 and~~ CNCM I-4180, and derivatives thereof.

2~~3~~. An antibody directed against ICOS, wherein said antibody has the following 6 CDRs:

	Aminoacid sequence
H-CDR1	GYTFTTYWMH (SEQ ID NO:7)
H-CDR2	EIDPSDSYVNYNQNFKG (SEQ ID NO:8)
H-CDR3	FDY (SEQ ID NO:9)
L-CDR1	RSSKSPLHSNGNIYLY (SEQ ID NO :10)
L-CDR2	RMSNLAS (SEQ ID NO :11)
L-CDR3	MQHLEYPYT (SEQ ID NO :12)

3~~4~~. An antibody according to claim 2~~3~~, wherein the nucleotidic sequences encoding the 6 CDRs are the following:

	DNA sequence
H-CDR1	GGCTACACCTTCACCACCTACTGGATGCAC (SEQ ID NO:1)
H-CDR2	GAGATTGATCCTTCTGATAGTTATGTTAACTACAATCAAAACTTTAAGGGC (SEQ ID NO:2)
H-CDR3	TTTGATTAC (SEQ ID NO:3)
L-CDR1	AGGTCTAGTAAGAGTCCCCTGCATAGTAACGGCAACATTTACTTATAT (SEQ ID NO:4)
L-CDR2	CGGATGTCCAACCTTGCCTCA

	(SEQ ID NO:5)
L-CDR3	ATGCAACATCTAGAATATCCGTACACG (SEQ ID NO:6)

45. The antibody according to any one of claims 1 to 34 for use as a medicament.

~~6. The antibody according to any one of claims 1 to 4 for use for treating a disease or a condition associated with Treg mediated suppression of immune response.~~

57. The antibody according to claim 64, for use for treating a ~~wherein said~~ disease or condition ~~is~~ selected from cancers and chronic infections.

68. The antibody according to claim 57, wherein said cancer is a selected from human malignant lymphoma, ovarian cancer, cervical cancer and breast cancer.

7. Use of an antibody according to any one of claims 1 to 3 in the manufacture of a medicament for the treatment of a disease or condition selected from cancers and chronic infections.

8. The use according to claim 7, wherein said cancer is selected from human malignant lymphoma, ovarian cancer, cervical cancer and breast cancer.

~~9. An antibody directed against ICOS or a derivative thereof which:~~

- ~~induces IL-10 and IFNγ production;~~
- ~~induces CD4+ T cells proliferation;~~
- ~~reduces Tconv proliferation, and~~
- ~~increases the immunosuppressive function of Treg.~~

~~10. An antibody directed against ICOS, wherein said antibody is selected from the group consisting of Icos 53-3, Icos 88-2 and Icos 92-17, respectively obtainable from the hybridoma deposited at the CNCM on July 2, 2009 under the accession numbers CNCM I-4176, CNCM I-4177, CNCM I-4178 and derivatives thereof.~~

~~11. An antibody directed against ICOS, wherein said antibody has the following 6 CDRs:~~

	~~Aminoacid sequence~~
~~H-CDR1~~	~~GYSFTSYWIN (SEQ ID NO:23)~~
~~H-CDR2~~	~~NIYPSDSYTNYNQMFKD (SEQ ID NO:24)~~
~~H-CDR3~~	~~WNLSYYFDNNYYLDY (SEQ ID NO:25)~~

L-CDR1	RSSKSLLHSNGNTYLY (SEQ ID NO :26)
L-CDR2	RMSNLAS (SEQ ID NO :27)
L-CDR3	MQHLEYPWT (SEQ ID NO :28)

12. An antibody according to claim 11, wherein the nucleotidic sequences encoding the 6 CDRs are the following:

	DNA sequence
H-CDR1	GGCTACAGTTTCACCAGCTACTGGATAAAC (SEQ ID NO:17)
H-CDR2	AATATTTATCCTTCTGATAGTTATACTAACTACAATCAAATGTTCAAGGAC (SEQ ID NO:18)
H-CDR3	TGGAATCTTTCTTATTACTTCGATAATAACTACTACTTGGACTAC (SEQ ID NO:19)
L-CDR1	AGGTCTAGTAAGAGTCTCCTGCATAGTAATGGCAACACTTACTTGTAT (SEQ ID NO:20)
L-CDR2	CGGATGTCCAACCTTGCCTCA (SEQ ID NO:21)
L-CDR3	ATGCAACATCTAGAATATCCGTGGACG (SEQ ID NO:22)

13. The antibody according to any one of claims 9 to 12 for use as a medicament.

14. The antibody according to any one of claims 9 to 12 for use for treating a disease or a condition associated with or caused by an excessive immune response.

15. The antibody according to claim 14, wherein said disease is selected from the group consisting of autoimmune diseases, transplantation rejection or a graft versus host disease.

16. The antibody according to claim 14, wherein said disease is an inflammatory disorder.

17. The antibody according to claim 16, wherein said inflammatory disorder is selected in the group consisting of inflammatory disorder of the nervous system, mucosal inflammatory disease, inflammatory skin disease and autoimmune arthritis.

18. The antibody according to claim 17, wherein said inflammatory disorder is selected from multiple sclerosis, inflammatory bowel disease, asthma or tonsillitis, dermatitis, psoriasis, contact hypersensitivity and rheumatoid arthritis.

19. Method for diagnosing an increased risk of relapse or early death in a breast cancer patient, comprising the step of quantifying ICOS positive Treg cells in a sample of said patient.

20. Method for selecting patients susceptible of being treated by anti-ICOS immunotherapy, comprising the step of quantifying ICOS positive Treg cells in a sample of said patient.