SUMMARY

The present invention relates to polypeptides which share primary sequence with human IL-2, except for several amino acids that have been mutated. The mutations introduced substantially reduce the ability of these polypeptides to stimulate *in vitro* and *in vivo* regulatory T cells (T CD4+CD25+FoxP3+) and make them more effective in the therapy of murine transplantable tumors. Also includes therapeutic uses of these mutated variants, used alone or in combination with vaccines for the therapy of diseases such as cancer or infections where the activity of regulatory T cells (Tregs) is relevant. In another aspect the present invention relates to pharmaceutical compositions comprising as active principle the polypeptides disclosed. Finally, the present invention relates to the therapeutic use of the polypeptidess and pharmaceutical compositions disclosed due to their modulating effect of the immune system on diseases like cancer and chronic infectious diseases.