Abstract

CHIMERIC ANTIGEN RECEPTORS AND MODIFIED CELLS COMPRISING THE SAME

The present invention relates to a chimeric antigen receptor (CAR) comprising an extracellular domain that binds to one or more inflammation associated factor(s), a transmembrane/hinge domain and an intracellular domain. In a specific embodiment, a T regulatory (Treg) cell expressing a construct encoding said CAR which further comprising a Fox3p and a CAR activation-dependent NF-AT promoter that drives the expression of interleukin-10 and TGF-beta. It also relate to the methods of producing the CAR, the Treg cells expressing said CAR and the use of said CAR to treat autoimmune diseases such as transplant rejection, a graft versus host disease (GVHD) and cytokine release syndrome.
Figure 1