and Remicade (ingredient name: infliximab), Humira (ingredient name: adalimimab) of TNF-α antagonists as biological agents. Most of the therapeutic agents which have been so far developed for rheumatoid arthritis have adverse effects such as gastrointestinal disorders, and cannot significantly suppress the progress of joint damage.

[0008] TGF-β1, one of the cell therapeutic agent components of the present invention, is a multifunctional modulator for cell growth and differentiation. It has been reported that the neuropathic pain due to nerve injury is significantly reduced by intrathecal injection of recombinant TGF-β1 by targeting various types of cells with multi-differentiating potencies.

[0009] It has been recently reported that chondrocytes expressing TGF-β1 or fibroblasts are effective in treating degenerative arthritis (Lee KH et al., Hum Gene Ther 2001; 12: 1805-1813, SUN U. SONG et al. Tissue Engineering 2005; 11: 1516-1526), but the possibility of treating rheumatoid arthritis which has different causes and pathologies from those of degenerative arthritis has not been reported.

[0010] Accordingly, the present inventors have made efforts to develop a cell therapeutic agent having anti-inflammatory action and therapeutic effect for rheumatoid arthritis, and as a result, it has been confirmed that the symptoms of rheumatism are improved when a mixed cell composition of a chondrocyte and a cell expressing TGF-β1 is treated to a rheumatoid arthritis-induced animal model, whereby the present invention has been completed.