

NAME OF THE INVENTION: ANTI-HUMAN NR1 ANTIBODY DERIVATIVE

ABSTRACT:

The present invention addresses the problem of providing a novel therapeutic agent for treating patients with anti NMDAR encephalitis. Patients with an anti NMDAR encephalitis have a pathogenic anti-human NR1 antibody that induces internalization of NMDAR on cell surface. As a result, NMDAR function is weakened in the patients' brain. The present inventors found that the one-armed anti-human NR1 antibody according to the present invention binds to NR1 competitively with the pathogenic anti-human NR1 antibody and inhibits the internalization of NMDAR by the pathogenic anti-human NR1 antibody to thereby exhibit therapeutic effect on anti NMDAR encephalitis. Accordingly, the present invention provides the a one-armed anti-human NR1 antibody, a polynucleotide encoding the antibody, an expression vector containing the polynucleotide, a host cell transformed by the expression vector, a method for producing the antibody, a pharmaceutical composition comprising the antibody, a use of the antibody in the manufacture of the pharmaceutical composition, and a method for treating anti NMDAR encephalitis using the antibody.

[no suitable figure]