Abstract

BISPECIFIC ANTIBODY SPECIFICALLY BINDING TO TIE2 AND VEGF, AND USE THEREOF

The present invention provides a novel anti-Tie2 antibody or fragment thereof, and a bispecific antibody comprising the antibody and a VEGF-specific binding site. The anti-Tie2 antibody according to the present invention induced phosphorylation by specifically binding to the Tie2 protein. At this time, the antigen specificity and affinity of the anti-Tie2 antibody were excellent compared to existing ligands (Ang-1, Ang-2). In addition, the bispecific antibody comprising the anti-Tie2 antibody and the VEGF binding site inhibited VEGF while activating the Tie2 protein. In particular, the bispecific antibody effectively inhibited side effects that can be caused by an inhibitor of VEGF. In addition, the anti-Tie2 antibody or bispecific antibody exhibited a therapeutic effect on diseases in a mouse model of vascular abnormality-related diseases. Thus, the anti-Tie2 antibody and the bispecific antibody comprising the anti-Tie2 antibody and the VEGF-specific binding site according to the present invention can be used as a therapeutic agent for vascular abnormality-related diseases.