

Claims

1. A monoclonal antibody or antigen-binding fragment thereof that specifically bind to the beta chain region of the human TCR TRBV9 family, comprising a heavy chain variable domain, the amino acid sequence of which is shown in SEQ ID No: 16 and a light chain variable domain, the amino acid sequence of which is shown in SEQ ID No: 18.
2. A monoclonal antibody according to Claim 1, which includes a heavy chain having the amino acid sequence of SEQ ID No: 20 and a light chain having the amino acid sequence of SEQ ID No: 22.
3. A monoclonal antibody according to any of Claims 1-2, which is a full-length IgG antibody.
4. A nucleic acid that encodes the heavy chain and the light chain of a monoclonal antibody or antigen-binding fragment thereof according to any one of Claims 1-3, wherein the antibody or antigen binding fragment thereof specifically binds to the beta chain region of the human TCR TRBV9 family.
5. An expression vector containing a nucleic acid according to Claim 4.
6. A method of obtaining a host cell for producing an antibody or antigen-binding fragment thereof according to any of Claims 1-3 comprising co-transformation of a cell with a vector according to Claim 6.
7. A host cell for obtaining an antibody or antigen binding fragment thereof according to any one of Claims 1-3, comprising a nucleic acid according to Claim 4.
8. A method of obtaining an antibody or antigen-binding fragment thereof according to any of Claims 1-3, comprising culturing a host cell according to Claim 7 in a culture medium under conditions ensuring the production of said antibody or antigen-binding fragment thereof, followed by isolation and purification of the obtained antibody or antigen-binding fragment thereof.
9. A pharmaceutical composition, comprising in a therapeutically effective amount an antibody or antigen-binding fragment thereof according to any of Claims 1-3 in combination with one or more pharmaceutically acceptable excipients.

10. A pharmaceutical composition, comprising in a therapeutically effective amount an antibody or antigen-binding fragment thereof according to any of Claims 1-3 and at least other therapeutically active compound in a therapeutically effective amount.
11. A pharmaceutical composition according to Claim 10, wherein the other therapeutically active compound is selected from a small molecule, antibody or steroid hormones.
12. The antibody or antigen-binding fragment thereof according to any of Claims 1-3 or the pharmaceutical composition according to any of Claims 9-11 for treating in a subject in need of such treatment a disease or disorder mediated by the of the beta chain region of the human TCR TRBV9 family, wherein the disease is selected from the group: ankylosing spondylitis, celiac disease, T cell leukemia, T cell lymphoma.