CLAIMS

What is claimed is:

1. An isolated antibody that binds human homodimeric IL-17A and human heterodimeric IL-17AF or antigen-binding portion thereof, comprising a heavy chain variable region (V_H) and a light chain variable region (V_L):
a. wherein said V_H comprises, in sequence, the three Complementarity Determining Regions (CDRs) set forth as amino acid sequences SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:3 and wherein said V_L comprises, in sequence, the three CDRs set forth as amino acid sequences SEQ ID NO:42, SEQ ID NO:23, SEQ ID NO:11; or
b. wherein said V_H comprises, in sequence, the three CDRs set forth as amino acid sequences SEQ ID NO: 1, SEQ ID NO:2, SEQ ID NO:3 and wherein said V_L comprises, in sequence, the three CDRs set forth as amino acid sequences SEQ ID NO:41, SEQ ID NO:5, SEQ ID NO:6.

2. An isolated antibody that binds human homodimeric IL-17A and human heterodimeric IL-17AF or antigen-binding portion thereof, comprising a V_H and a V_L, wherein said V_H comprises the three CDRs of the amino acid sequence set forth as SEQ ID NO:12 and wherein said V_L comprise the three CDRs of the amino acid sequence set forth as SEQ ID NO:43.

3. The isolated antibody or antigen-binding portion thereof according to claim 2, wherein the three CDRs of the amino acid sequence set forth as SEQ ID NO:12 are set forth as amino acid sequences SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:3 and wherein the three CDRs of the amino acid sequence set forth as SEQ ID NO:43 are set forth as amino acid sequences SEQ ID NO:42, SEQ ID NO:23, SEQ ID NO:11, and further wherein the CDRs are delineated according to the Kabat definition.

4. The isolated antibody or antigen-binding portion thereof according to claim 2, wherein the three CDRs of the amino acid sequence set forth as SEQ ID NO:12 are set forth as amino acid sequences SEQ ID NO: 1, SEQ ID NO:2, SEQ ID NO:3 and wherein the three CDRs of the amino acid sequence set forth as SEQ ID NO:43 are set forth as amino acid sequences SEQ ID NO:41, SEQ ID NO:5, SEQ ID NO:6, and further wherein the CDRs are delineated according to the Chothia definition.

5. The isolated antibody or antigen-binding portion thereof according to claim 2, wherein said V_H comprises the amino acid sequence set forth as SEQ ID NO:12 and wherein said V_L comprises the amino acid sequence set forth as SEQ ID NO:43.

6. The isolated antibody or antigen-binding portion thereof according to any one of claims 1-5, which is a human antibody or antigen-binding portion thereof, a monoclonal antibody or antigen-binding portion thereof, a chimeric antibody or antigen-binding portion thereof, a humanized antibody or antigen-binding portion thereof, a F(ab')2 fragment, a Fab fragment, or a Fv fragment.

7. The isolated antibody or antigen-binding portion thereof according to claim 6, which is a human antibody.

8. The isolated antibody or antigen-binding portion thereof according to claim 6, which has a binding affinity for human IL-17A below 200 pM as measured by Biacore assay.

9. The isolated antibody or antigen-binding portion thereof according to claim 8, which has a binding affinity for human IL-17A below 100 pM as measured by Biacore assay.

10. A pharmaceutical composition comprising the isolated antibody or antigen-binding portion thereof according to claim 6 in combination with one or more pharmaceutically acceptable excipient, diluent or carrier.

11. An isolated antibody that binds human homodimeric IL-17A and human heterodimeric IL-17AF, comprising a heavy chain and a light chain, wherein said heavy chain comprises the three CDRs of the amino acid sequence set forth as SEQ ID NO:12 and wherein said light chain comprises the three CDRs of the amino acid sequence set forth as SEQ ID NO:43.

12. The isolated antibody according to claim 11, wherein the three CDRs of the amino acid sequence set forth as SEQ ID NO:12 are set forth as amino acid sequences SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:3 and wherein the three CDRs of the amino acid sequence set forth as SEQ ID NO:43 are set forth as amino acid sequences SEQ ID NO:42, SEQ ID NO:23, SEQ ID NO:11, and further wherein the CDRs are delineated according to the Kabat definition.

13. The isolated antibody according to claim 11, wherein the three CDRs of the amino acid sequence set forth as SEQ ID NO:12 are set forth as amino acid sequences SEQ ID NO: 1, SEQ ID NO:2, SEQ ID NO:3 and wherein the three CDRs of the amino acid sequence set forth as SEQ ID NO:43 are set forth as amino acid sequences SEQ ID NO:41, SEQ ID NO:5, SEQ ID NO:6, and further wherein the CDRs are delineated according to the Chothia definition.

14. The isolated antibody according to claim 11, wherein said heavy chain comprises a V_H comprising the amino acid sequence set forth as SEQ ID NO: 12 and a V_L comprising the amino acid sequence set forth as SEO ID NO:43.

15. The isolated antibody according to claim 11, wherein said heavy chain comprises the amino acid sequence set forth as SEQ ID NO: 14 and wherein said light chain comprises the amino acid sequence set forth as SEQ ID NO:44.

16. The isolated antibody according to claim 11, which is a human antibody, a monoclonal antibody, a chimeric antibody, or a humanized antibody.

17. The isolated antibody according to claim 16, which is a human antibody.

18. The isolated antibody according to claim 11, which has a binding affinity (K_D) for human IL-17A below 200 pM as measured by Biacore assay.

19. The isolated antibody according to claim 11, which has a K for human IL-17A below 100pM as measured by Biacore assay.

20. A pharmaceutical composition comprising the isolated antibody or antigen-binding portion thereof according to claims 1-5 or claims 11-19 in combination with one or more pharmaceutically acceptable excipient, diluent or carrier.