

What is claimed is:

1. An isolated antibody or antigen-binding fragment thereof that specifically binds human interleukin-25 (IL-25), wherein the antibody or antigen-binding fragment thereof comprises three heavy chain complementarity determining regions (HCDRs) contained within a heavy chain variable region (HCVR) comprising the amino acid sequence of SEQ ID NO: 114 and three light chain complementarity determining regions (LCDRs) contained within a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO: 122.
2. The isolated antibody or antigen-binding fragment of claim 1, wherein the antibody or antigen-binding fragment thereof binds human IL-25 with a K_D of less than about 100 pM as measured by surface plasmon resonance at 25°C or 37°C.
3. The isolated antibody or antigen-binding fragment of claim 2, wherein the antibody or antigen-binding fragment thereof binds human IL-25 with a K_D of less than about 60 pM as measured by surface plasmon resonance at 25°C or 37°C.
4. The isolated antibody or antigen-binding fragment of claim 3, wherein the antibody or antigen-binding fragment thereof binds human IL-25 with a K_D of less than about 40 pM as measured by surface plasmon resonance at 25°C or 37°C.
5. The isolated antibody or antigen-binding fragment of claim 4, wherein the antibody or antigen-binding fragment thereof binds human IL-25 with a K_D of less than about 20 pM as measured by surface plasmon resonance at 25°C or 37°C.
6. The isolated antibody or antigen-binding fragment of claim 1, wherein the antibody or antigen-binding fragment thereof binds human IL-25 with a $t_{1/2}$ of greater than about 150 minutes as measured by surface plasmon resonance at 25°C.
7. The isolated antibody or antigen-binding fragment of claim 6, wherein the

antibody or antigen-binding fragment thereof binds human IL-25 with a $t_{1/2}$ of greater than about 200 minutes as measured by surface plasmon resonance at 25°C.

8. The isolated antibody or antigen-binding fragment of claim 7, wherein the antibody or antigen-binding fragment thereof binds human IL-25 with a $t_{1/2}$ of greater than about 250 minutes as measured by surface plasmon resonance at 25°C.

9. The isolated antibody or antigen-binding fragment of claim 8, wherein the antibody or antigen-binding fragment thereof binds human IL-25 with a $t_{1/2}$ of greater than about 400 minutes as measured by surface plasmon resonance at 25°C.

10. The isolated antibody or antigen-binding fragment of claim 1, wherein the antibody or antigen-binding fragment thereof blocks human IL-25 signaling in cells engineered to express an IL-25 receptor (IL-17RA/IL-17RB) with an IC_{50} of less than about 720 pM.

11. The isolated antibody or antigen-binding fragment of claim 10, wherein the antibody or antigen-binding fragment thereof blocks human IL-25 signaling in cells engineered to express an IL-25 receptor (IL-17RA/IL-17RB) with an IC_{50} of less than about 500 pM.

12. The isolated antibody or antigen-binding fragment of claim 11, wherein the antibody or antigen-binding fragment thereof blocks human IL-25 signaling in cells engineered to express an IL-25 receptor (IL-17RA/IL-17RB) with an IC_{50} of less than about 100 pM.

13. The isolated antibody or antigen-binding fragment of claim 1, wherein the antibody or antigen-binding fragment thereof blocks human IL-25 signaling in human PBMCs with an IC_{50} of less than about 2.0 nM.

14. The isolated antibody or antigen-binding fragment of claim 13, wherein the

antibody or antigen-binding fragment thereof blocks human IL-25 signaling in human PBMCs with an IC₅₀ of less than about 700 pM.

15. The isolated antibody or antigen-binding fragment of claim 14, wherein the antibody or antigen-binding fragment thereof blocks human IL-25 signaling in human PBMCs with an IC₅₀ ranging from about 30 pM to about 150 pM.

16. The isolated antibody or antigen-binding fragment thereof of claim 1, which comprises an HCVR amino acid sequence of SEQ ID NO:114.

17. The isolated antibody or antigen-binding fragment thereof of claim 1, which comprises an LCVR amino acid sequence of SEQ ID NO: 122.

18. The isolated antibody or antigen-binding fragment thereof of claim 1, which comprises an HCVR/LCVR amino acid sequence pair of SEQ ID NO: 114/122.

19. The isolated antibody or antigen-binding fragment of claim 1, wherein the antibody or antigen-binding fragment thereof comprises a set of six CDRs SEQ ID NOs: 116, 118, 120, 124, 126, and 128.

20. A pharmaceutical composition comprising the antibody or antigen-binding fragment of claim 1, and a pharmaceutically acceptable carrier or diluent.

21. The antibody of claim 1, wherein the antibody or antigen-binding fragment thereof further exhibits one or more of the following characteristics:

- (a) is a fully human monoclonal antibody;
- (b) binds human IL-25 with a K_D of less than about 120 pM as measured by surface plasmon resonance at 25°C;
- (c) binds human IL-25 with a dissociative half life (t_{1/2}) of greater than about 105 minutes as measured by surface plasmon resonance at 25°C;
- (d) blocks human IL-25 signaling in cells engineered to express an IL-25

receptor (IL-17RA/IL-17RB) with an IC_{50} of less than about 2 nM;

(e) blocks human IL-25 signaling in human peripheral blood mononuclear cells (PBMCs) with an IC_{50} of less than about 16 nM;

(f) reduces circulating and/or lung IgE levels in a mammal that overexpresses IL-25; or

(g) reduces goblet cell metaplasia in a mammal that overexpresses IL-25.