CLAIMS:

1. An isolated interleukin-33 (IL-33) binding agent comprising (a) an immunoglobulin heavy chain variable region of SEQ ID NO: 136 or at least the CDRs thereof; and (b) an immunoglobulin light chain variable region of SEQ ID NO: 171 or at least the CDRs thereof.

2. An isolated IL-33 binding agent, which comprises (a) an immunoglobulin heavy chain variable region of SEQ ID NO: 136; and (b) an immunoglobulin light chain variable region of SEQ ID NO: 171.

3. The isolated IL-33-binding agent of claim 1, which is an antibody, an antibody conjugate, or an antigen-binding fragment thereof.

4. The isolated IL-33-binding agent of claim 1, which is an antibody fragment selected from $F(ab')_2$, Fab', Fab, Fv, scFv, dsFv, dAb, and a single chain binding polypeptide.

5. The isolated IL-33-binding agent of claim 1, wherein the binding agent is an IgG1 antibody.

6. The isolated IL-33-binding agent of claim 1, wherein the IL-33-binding agent binds to IL-33 with a K_D from 1 picomolar (pM) to 1 nanomolar (nM).

7. The isolated IL-33-binding agent of claim 2, which is an antibody, an antibody conjugate, or an antigen-binding fragment thereof.

8. The isolated IL-33-binding agent of claim 2, which is an antibody fragment selected from F(ab')2, Fab', Fab, Fv, scFv, dsFv, dAb, and a single chain binding polypeptide.

9. The isolated IL-33-binding agent of claim 2, wherein the binding agent is an IgG1 antibody.

10. The isolated IL-33-binding agent of claim 2, wherein the IL-33-binding agent binds to IL-33 with a KD from 1 picomolar (pM) to 1 nanomolar (nM).

11. An isolated or purified nucleic acid encoding the IL-33-binding agent of any one of claims 1-10.

12. A vector comprising an isolated or purified nucleic acid sequence encoding the IL-33-binding agent of any one of claims 1-10.

13. An isolated cell comprising the vector of claim 12.

14. Use of a composition comprising (a) the isolated IL-33-binding agent of any one of claims 1-10, or a vector comprising an isolated or purified nucleic acid sequence encoding the isolated IL-33-binding agent and (b) a pharmaceutically acceptable carrier in the manufacture of a medicament for the treatment of an inflammatory disorder in a mammal.

15. The use of claim 14, wherein the inflammatory disorder is atopic dermatitis, allergic asthma, chronic obstructive pulmonary disease (COPD), food allergy, or fibrosis.

16. The use of claim 15, wherein the food allergy is a peanut allergy.

17. Use of a composition comprising (a) the isolated IL-33-binding agent of any one of claims 1-10 or a vector comprising an isolated or purified nucleic acid sequence encoding the isolated IL-33-binding agent and (b) a pharmaceutically acceptable carrier in the manufacture of a medicament for the treatment of an autoimmune disease in a mammal.

18. The use of claim 17, wherein the autoimmune disease is Crohn’s disease or rheumatoid arthritis.

19. Use of a composition comprising (a) the isolated IL-33-binding agent of any one of claims 1-10 or a vector comprising an isolated or purified nucleic acid sequence encoding the isolated IL-33-binding agent and (b) a pharmaceutically acceptable carrier in the manufacture of a medicament for the treatment of cancer in a mammal.

20. The use of claim 19, wherein the cancer is an epithelial cancer, chronic myelogenous leukemia (CML), breast cancer, or gastrointestinal cancer.

21. A composition comprising (a) the isolated IL-33-binding agent of any one of claims 1-10, or a vector comprising an isolated or purified nucleic acid sequence encoding the isolated IL-33-binding agent and (b) a pharmaceutically acceptable carrier for use in the treatment of an inflammatory disorder, autoimmune disease or cancer in a mammal.