We claim:

1. A method of decreasing assay interference, comprising the steps of:

acidifying a sample to a pH sufficient to dissociate IL-33 from IL-33 complexes in the sample;

subsequently neutralizing the acidified sample with a buffered basic solution comprising a detection reagent and optionally a blocking agent that inhibits IL-33 complex formation;

adding a capture reagent to the sample; and

detecting the detection reagent, wherein the quantity of detection reagent detected correlates to the quantity of IL-33 in the sample.

2. The method of claim 1, wherein the sample comprising blood, serum, or plasma.

3. The method of claim 2, wherein the sample is from a subject that was administered an IL-33 drug product.

4. The method of claim 3, wherein the IL-33 drug product comprises an anti-IL-33 antibody.

5. The method of any one of claims 1-4, wherein the IL-33 complex comprises IL-33 non-covalently bound to a protein.

6. The method of claim 5, wherein the protein is an endogenous serum protein.

7. The method of claim 5, wherein the protein is ST2 or an IL-33 binding fragment thereof.

8. The method of claim 5, where the protein is an anti-IL-33 antibody or an IL-33 binding fragment thereof.

9. The method of any one of claims 1-8, wherein the sample is acidified to a pH of 3 to 5.

10. The method of any one of claims 1-9, wherein the sample is acidified for 5 to 60 minutes.

11. The method of any one of claims 1-10, wherein the detection reagent comprises an anti-IL-33 antibody conjugated to a detectable label.

12. The method of any one of claims 1-11, wherein the detection reagent comprises a detectable agent selected from the group consisting of a rare transition metal particle, a fluorophore, a chromophore, a quantum dot, and noble metal nanoparticles.

13. The method of any one of claims 1-12, wherein the detection reagent is labeled with ruthenium.

14. The method of any one of claims 1-13, wherein the capture reagent is conjugated to solid support.

15. The method of any one of claim 1-14, wherein the capture reagent is biotinylated.

16. The method of any one of claims 1-15, wherein the sample is acidified with acetic acid.

17. The method of any one of claims 1-16, wherein the blocking agent is an antibody.

18. The method of any one of claims 1-17, wherein the blocking agent is an anti-ST2 antibody.

19. The method of any one of claims 1-18, wherein the capture reagent can also be added to the sample during the acidification step.

20. The method of any one of claims 1-19, wherein the blocking agent is added to the sample after the neutralizing step.

21. The method of any one of claims 1-20, wherein the capture reagent and the blocking agent are added to the sample after the neutralizing step.

22. The method of any one of claims 1-21, wherein the method has a sensitivity of 12.5 pg/mL.

23. The method of any one of claims 1-22, wherein the method has an ST2 tolerance of > 50 ng/mL.

24. The method of any one of claims 1-23, wherein the sample is obtained from a subject diagnosed with or suspected of having an inflammatory disease or disorder.

25. The method of any one of claims 1-24, wherein the sample is obtained from a subject diagnosed with or suspected of having asthma, chronic obstructive pulmonary disease, or atopic dermatitis.

26. The method of any one of claims 14-25, wherein the solid support is an electrochemiluminescence platform.

27. The method of any one of claims 1-26, wherein the quantity of IL-33 is determined by correlating the amount of detected detection reagent to a predetermined reference standard.

28. A method of quantifying interleukin-33 in a serum sample, comprising the steps of:

acidifying the serum sample to a pH sufficient to dissociate IL-33 complexes in the sample;

neutralizing the acidified sample with a buffered basic solution comprising (a) an anti-human IL-33 antibody labeled with a detectable label, and optionally (b) an anti-human ST2 antibody;

adding the sample to an avidin-coated solid support comprising a biotinylated anti-human IL-33 antibody; and

detecting the detectable label on the avidin-coated solid support, wherein the quantity of detectable label detected correlates to the quantity of IL-33 in the sample.

29. The method of claim 28, wherein the solid support is a streptavidin-coated electrochemiluminescence platform.

30. The method of any one of claims 28 or 29, wherein the detectable label is ruthenium.

31. The method of any one of claims 28-30, wherein the anti-human ST2 antibody is present in an amount sufficient to reduce ST2 binding to IL-33 in the sample.

32. The method of any one of claims 28-30, wherein the method has a sensitivity of 12.5 pg/mL and an ST2 tolerance of > 50 ng/mL.