4~~3~~. The method of claim 2 or 3, wherein the acidic variant is a deamidated variant.

5~~4~~. The method of any of claims 1~~4~~~~1~~~~3~~, wherein the AIEX matrix contains quaternary amine and tertiary amine ion exchange groups.

6~~5~~. The method of claim 5~~4~~, wherein the AIEX matrix contains a quaternary amino (Q) group.

7~~6~~. The method of claim 6~~5~~, wherein the AIEX matrix is Q sepharose.

8~~7~~. The method of any of claims 1~~7~~~~1~~~~6~~, wherein the polypeptide is eluted with a linear or step salt gradient.

9~~8~~. The method of claim 8~~7~~, wherein the polypeptide is eluted with a linear salt gradient.

10~~9~~. The method of claim 9~~8~~, wherein the linear salt gradient is from about 150mM NaCl in Tris/HCl, pH 8.0 to about 300 mM NaCl in Tris/HCl, pH 8.0.

11~~10~~. The method of claim 10~~9~~, wherein the linear salt gradient is from about 175mM NaCl in Tris/HCl, pH 8.0 to about 275 mM NaCl in Tris/HCl, pH 8.0.

12~~11~~. The method of claim 10~~9~~, wherein the linear salt gradient is from about 192mM NaCl in Tris/HCl, pH 8.0 to about 245 mM NaCl in Tris/HCl, pH 8.0.

13~~12~~. The method of any of claims 1~~12~~~~1~~~~11~~, wherein between about 75 to about 99% of the acidic or deamidated variant is removed.

14. ~~13~~. The method of claim 13. ~~12~~, wherein about 80% of the acidic or deamidated variant is removed.

15. ~~14~~. The method of claim 13. ~~12~~, wherein about 85% of the acidic or deamidated variant is removed.

16. ~~15~~. The method of claim 13. ~~12~~, wherein about 90% of the acidic or deamidated variant is removed.

17. ~~16~~. The method of claim 13. ~~12~~, wherein about 95% of the acidic or deamidated variant is removed.

18. ~~17~~. The method of claim 13. ~~12~~, wherein about 96%, 97%, 98%, or 99% of the acidic or deamidated variant is removed.

19. ~~18~~. The method of any of claims 1–18 ~~1–17~~, wherein the polypeptide or immunoconjugate comprises an antibody or antigen binding fragment thereof.

20. ~~19~~. The method of claim 19. ~~18~~, wherein the antibody or antigen binding fragment comprises a Fab, a Fab', a $F(ab')_2$, a Fd, a single chain Fv or scFv, a disulfide linked Fv, a V-NAR domain, an IgNar, an intrabody, an IgGΔCH2, a minibody, a $F(ab')_3$ a tetrabody, a triabody, a diabody, a single-domain antibody, DVD-Ig, Fcab, mAb^2, a $(scFv)_2$, or a scFv-Fc.

21. ~~20~~. The method of claim 19 ~~18~~ or 20. ~~19~~, wherein the antibody or antigen binding fragment binds a cell surface receptor.

22. ~~21~~. The method of claim 21. ~~20~~, wherein the cell surface receptor is CD22.

23-22. The method of any of claims 1–22-1-21, wherein the polypeptide or immunoconjugate comprises a toxin.

24-23. The method of claim 23-22, wherein the toxin is selected from the group consisting of: *Pseudomonas* exotoxin, ricin, abrin, diphtheria toxin and subunits thereof, as well as botulinum toxins A through F or variants, or derivatives thereof.

25-24. The method of claim 23-22 or 24-23, wherein the toxin is a *Pseudomonas* exotoxin, or variant thereof.

26-25. The method of claim 25-24, wherein said *Pseudomonas* exotoxin, or variant thereof has an amino acid sequence selected from the group consisting of SEQ ID NOs: 16-22.

27-26. The method of claim 25-24, wherein said *Pseudomonas* exotoxin, or variant thereof has the amino acid sequence of SEQ ID NO:22.

28-27. The method of claim 19-18 or 20-19, wherein said antibody or antigen binding fragment thereof comprises a VH and a VL sequence.

29-28. The method of claim 28-27, wherein said VH sequence is selected from the group consisting of SEQ ID NOs: 6-11.

30-29. The method of claim 28-27, wherein said VL sequence is selected from the group consisting of SEQ ID NOs: 2, and 12-15.

31~~30~~. The method of any of claims 1–30~~1-29~~, wherein the polypeptide or immunoconjugate comprises an anti-CD22 antibody or antigen binding fragment thereof and a PE or variant thereof.

32~~31~~. The method of claim 31~~30~~, wherein the immunoconjugate is the CAT-8015 immunotoxin comprising the V_H-PE38 subunit of SEQ ID NO: 1 and the V_L subunit of SEQ ID NO:2.

33~~32~~. A composition comprising a purified immunoconjugate having less than between about 25% and about 1% deamidated species, wherein said immunoconjugate is purified by the method of any of claims 1–32~~1-31~~.

34~~33~~. The composition of claim 33~~32~~, wherein less than about 25% of the deamidated species is present.

35~~34~~. The composition of claim 33~~32~~, wherein less than about 20% of the deamidated species is present.

36~~35~~. The composition of claim 33~~32~~, wherein less than about 10% of the deamidated species is present.

37~~36~~. The composition of claim 33~~32~~, wherein less than about 5% of the deamidated species is present.

38~~37~~. The composition of claim 33~~32~~, wherein less than about 3% of the deamidated species is present.

39~~-38~~. The composition of claim 33~~-32~~, wherein less than about 2% of the deamidated species is present.

40~~-39~~. The composition of claim 33~~-32~~, wherein less than about 1% of the deamidated species is present.

41~~-40~~. A pharmaceutical composition comprising the purified immunoconjugate of any of claims 33–40~~-32-39~~ and a pharmaceutically acceptable carrier.

42~~-41~~. A composition comprising a purified immunoconjugate having less than between about 20% and about 1% deamidated species, wherein said immunoconjugate comprises an anti-CD22 antibody or antigen binding fragment thereof and a PE toxin or variant thereof.

43~~-42~~. The composition of claim 42~~-41~~, wherein said immunoconjugate comprises the V_H-PE38 subunit of SEQ ID NO: 1 and the V_L subunit of SEQ ID NO:2.

44~~-43~~. The composition of claim 42~~-41~~, wherein said purified immunoconjugate has less than 20% of deamidated species.

45~~-44~~. A unit dosage form of a purified immunoconjugate in the range of 0.1 mg to 6 mg, wherein said immunoconjugate comprises an anti-CD22 antibody or antigen binding fragment thereof and a PE toxin or variant thereof.

46~~-45~~. The unit dosage form of claim 45~~-44~~, wherein said immunoconjugate comprises the V_H-PE38 subunit of SEQ ID NO: 1 and the V_L subunit of SEQ ID NO:2.

47-46. A formulation comprising the composition of any of claims 33–44-32-43 and at least one excipient selected from the group consisting of sodium chloride, potassium dihydrogen phosphate, disodium hydrogen phosphate, and sodium hydroxide and water.

48-47. A formulation comprising the composition of any of claims 33–44-32-43 comprising 1 mg/mL CAT-8015 in 25 mM sodium phosphate, 4% sucrose, 8% glycine, 0.02% polysorbate 80 (PS80), pH 7.4.

49-48. The formulation of ~~claim~~ any one of claims 42–44-41 to 43 that is further lyophilized.

50-49. A method of modifying the bioactivity of a polypeptide solution comprising a polypeptide and a deamidated variant, the method comprising separating the polypeptide from the deamidated variant by linear elution AIEX chromatography; and combining the purified polypeptide and deamidated variant in fixed quantities to obtain the desired bioactivity of the polypeptide solution.

51-50. The method of any of claims 25–28-24-27, wherein said one or more deamidated residues are present within the *Pseudomonas* exotoxin or variant thereof.

52-51. The method of claim 48-47, wherein said immunoconjugate is encoded by the amino acid sequence of SEQ ID NO: 1 and is deamidated at position 358 of SEQ ID NO: 1.

53-52. The method of claim 3, wherein refolding the polypeptide or immunoconjugate isolated from the inclusion bodies comprises solubilization of inclusion bodies at a pH in a range of about pH 9.0 to about pH 10.5.

54 ~~53~~. The method of claim 3 or 53 ~~52~~, wherein refolding the polypeptide or immunoconjugate isolated from the inclusion bodies comprises solubilization of inclusion bodies at a pH of 10.5, a pH of 10.0, a pH of 9.5, or pH of 9.0.