What is claimed is:

1. A method of producing a purified protein of interest using an affinity chromatography (AC) matrix to which the protein of interest is bound, the method comprising washing the AC matrix with one or more wash solutions comprising (i) arginine, or an arginine derivative, and (ii) a nonbuffering salt, prior to elution of the protein of interest from the AC matrix.

2. The method of claim 1, wherein the AC matrix is washed with one wash solution that comprises both (i) arginine, or an arginine derivative, and (ii) a nonbuffering salt.

3. The method of claim 2, wherein the wash solution comprises Arginine-HCl.

4. The method of claim 2, wherein the nonbuffering salt is sodium chloride (NaCl).

5. The method of claim 1, wherein the AC matrix is washed with two wash solutions, a first wash solution and a second wash solution, wherein:
   (a) the first wash solution comprises arginine, or an arginine derivative, and the second wash solution comprises a nonbuffering salt; or
   (b) the first wash solution comprises a nonbuffering salt and the second wash solution comprises arginine, or an arginine derivative.

6. The method of any one of claims 1-5, wherein the protein of interest is an antibody or antibody fragment that binds to the Protein A column.

7. The method of claim any one of claims 1-6, wherein the one or more wash solutions remove impurities from the AC matrix.

8. A method of producing a purified antibody, or antibody fragment, using a Protein A column, the method comprising
   a) loading a mixture comprising the antibody, or antibody fragment, onto the Protein A column;

b) washing the Protein A column with a wash solution comprising (i) Arginine-HCl, at a concentration in a range of 0.05-0.85 M, and (ii) sodium chloride, at a concentration in a range of 0.1-2.0 M, wherein the wash solution removes impurities from the Protein A column; and

c) eluting the antibody, or antibody fragment, from the Protein A column.

9. The method of claim any one of claims 1-8, wherein the Arginine-HCl is at a concentration of or about 0.25 M.

10. The method of any one of claims 1-9, wherein the sodium chloride is at a concentration of or about 1 M.

11. The method of any one of claims 1-10 , wherein the pH of the one or more wash solutions is greater than 8.0

12. The method of any one of claims 1-11, wherein the pH of the one or more wash solutions is in a range of about 8.5-9.5.

13. The method of claim 12, wherein the pH of the one more wash solutions is 9.0

14. The method of any one of claims 7-13, wherein the impurities comprise high molecular weight (HMW) species.

15. The method of any one of claims 7-13, wherein the impurities comprise host cell proteins (HCPs).

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A method of producing a purified antibody, antibody fragment, or Fe fusion protein, using an affinity chromatography (AC) matrix to which the antibody, antibody fragment, or Fe fusion protein is bound, the method comprising:
   (a) loading a mixture comprising the antibody, antibody fragment, or Fe fusion protein onto the AC matrix; and
   (b) washing the AC matrix with one or more wash solutions, wherein at least one wash solution comprises both (i) argmme, or an arginine derivative, and (ii) a halogen salt, prior to elution of the antibody, antibody fragment, or Fe fusion protein from the AC matrix.

2. A method of producing a purified antibody, antibody fragment, or Fe fusion protein using an affinity chromatography (AC) matrix to which the antibody, antibody fragment, or Fe fusion protein is bound, the method comprising:
   (a) loading a mixture comprising the antibody, antibody fragment, or Fe fusion protein onto the AC matrix; and
   (b) washing the AC matrix with one or more wash solutions comprising (i) arginine, or an arginine derivative, and (ii) a halogen salt, wherein the arginine, or the arginine derivative, and the halogen salt are in different wash solutions, and wherein the pH of at least one of the wash solutions is greater than 8.0, prior to elution of the antibody, antibody fragment, or Fe fusion protein from the AC matrix.

3. The method of claim 1 or claim 2, wherein the AC matrix is a Protein A column.

4. The method of any one of claims 1-3, wherein the wash removes impurities from the AC matrix.

5. A method of producing a purified antibody, or antibody fragment, using a

Protein A column, the method comprising

a} loading a mixture comprising the antibody, or antibody fragment, onto the Protein A column;

b) washing the Protein A column with a wash solution comprising (i) arginine or an arginine derivative, at a concentration in a range of 0.05-0.85 M, and (ii) sodium chloride, at a concentration in a range of 0.1-2.0 M, wherein the wash removes impurities from the Protein A column; and

c) eluting the antibody, or antibody fragment, from the Protein A column.

6. The method of any one of claims 1-5, wherein the argmme ts at a concentration of or about 0.25 M.

7. The method of any one of claims 1-5, wherein the arginine is arginine-HCL

8. The method of any one of claims 1-4, wherein the halogen salt ts at a concentration of or about 1 M.

9. The method of any one of claims 1 and 3-5, wherein the pH of the wash is greater than 8.0.

10. The method of any one of claims 1-4, wherein the halogen salt is sodium chloride (NaCl).

11. The method of any one of claims 1-5, wherein the pH of the wash is in a range of about 8.5-9.5.

12. The method of any one of claims 1-5, wherein the pH ofthe wash is 9.0

13. The method of any one of claims 4-12, wherein the impurities comprise high molecular weight (HMW) species.

14. The method of any one of claims 4-12, wherein the impurities comprise host cell proteins (HCPs).

15. A purified antibody produced by the method of any one of claims 1 to 14.