Patent Claims

1. A method for purifying a protein from a sample comprising the protein and at least one impurity with hydrolytic activity, comprising the following steps:

i)

a) adding a polysorbate to the sample comprising the protein and at least one impurity with hydrolytic activity,

b) applying the mixture of step a) to a chromatography material, wherein the chromatography material is an affinity chromatography material or an ion exchange chromatography material, and

c) recovering the protein from the chromatography material, or

ii)

a) adding a polysorbate to the sample comprising the protein and at least one impurity with hydrolytic activity,

b) applying the mixture of step a) to a chromatography material, wherein the chromatography material is an affinity chromatography material or an ion exchange chromatography material,

c) applying a solution which comprises a polysorbate to the chromatography material, and

d) recovering the protein from the chromatography material;

wherein the polysorbate is polysorbate 20 or polysorbate 80, and the impurity is a hydrolase, an esterase or a lipase.

2. A method for reducing the hydrolytic activity in a sample comprising a protein and at least one impurity with hydrolytic activity, comprising the following steps:

i)

a) adding a polysorbate to the sample comprising the protein and at least one impurity with hydrolytic activity,

b) applying the mixture of step a) to a chromatography material, wherein the chromatography material is an affinity chromatography material or an ion exchange chromatography material, and

c) recovering the protein from the chromatography material, or

ii)

a) adding a polysorbate to the sample comprising the protein and at least one impurity with hydrolytic activity,

b) applying the mixture of step a) to a chromatography material, wherein the chromatography material is an affinity chromatography material or an ion exchange chromatography material,

c) applying a solution which comprises a polysorbate to the chromatography material, and

d) recovering the protein from the chromatography material,

wherein the polysorbate is polysorbate 20 or polysorbate 80, and the impurity is a hydrolase, an esterase or a lipase.

3. The method according to claim 1, wherein the polysorbate is added to a final concentration of at least 0.001% (w/v).

4. The method according to claim 1, wherein the polysorbate is added to a final concentration of from 0.001% (w/v) to 10% (w/v).

5. The method according to claim 1, wherein the chromatography material is an affinity chromatography material selected from Protein A chromatography or a chromatography material with a camelid-derived single domain antibody fragment as ligand.

6. The method according to claim 1, wherein the protein is a monoclonal antibody.

7. The method according to claim 1, wherein the protein is a humanized Type II anti-CD20 antibody, or an anti-VEGF/Ang2 antibody or an anti-HER2 antibody.