CLAIMS

Claim 1. A composition comprising a main species HER2 antibody that comprises light chain and heavy chain amino acid sequences in SEQ ID NOs. 15 and 16 respectively and binds to domain II of HER2, and acidic variants of that main species antibody, wherein the main species HER2 antibody is the antibody amino acid sequence structure in the composition which is the quantitatively predominant antibody molecule in the composition and the main species HER2 antibody and the acidic variants are all intact antibodies, wherein the acidic variants include a disulfide reduced variant, a non-reducible variant or both variants of the main species antibody.

Claim 2. The composition of claim 1, wherein the acidic variant comprises a disulfide reduced variant of the main species HER2 antibody.

Claim 3. The composition of claim 1 or claim 2, wherein the acidic variant comprises a non-reducible variant of the main species HER2 antibody.

Claim 4. The composition of claim 1 or claim 2, wherein the composition further comprises a glycated variant, a deamidated variant or a sialylated variant.

Claim 5. The composition of claim 1 or claim 2, wherein the composition comprises a glycated variant, a deamidated variant, a disulfide reduced variant, a sialylated variant, and a non-reducible variant.

Claim 6. The composition of claim 1 or claim 2, wherein the amount of the acidic variant(s) is less than about 25% of the total composition.

Claim 7. The composition of claim 1 or claim 2, comprising an amino-terminal leader extension variant of the main species HER2 antibody.

Claim 8. The composition of claim 7, wherein the amino-terminal leader extension comprises VHS-.

Claim 9. The composition of claim 8, wherein the amino-terminal leader extension consists of VHS-.

Claim 10. The composition of claim 1 or claim 2, further comprising an amino acid sequence variant of the main species HER2 antibody selected from the group consisting of an antibody comprising a C-terminal lysine residue on one or both heavy chains thereof, and an antibody with one or more oxidized methionine residues.

Claim 11. A pharmaceutical formulation comprising the composition of claim 1 or claim 2 in a pharmaceutically acceptable carrier.

Claim 12. The pharmaceutical formulation of claim 11 for use in treating HER2 positive cancer in a patient.

Claim 13. The pharmaceutical formulation of claim 12, wherein the cancer is selected from the group consisting of breast cancer, ovarian cancer, lung cancer, and colorectal cancer.

Claim 14. The pharmaceutical formulation of claim 11 or 12, further comprising Trastuzumab.

Claim 15. The pharmaceutical formulation of claim 14, for use in treating breast cancer.

Claim 16. The pharmaceutical formulation of claim 11, wherein the main species HER2 antibody and acidic variant(s) have essentially the same pharmacokinetics.

Claim 17. A method of making an evaluated pharmaceutical composition, comprising:
(1) preparing a composition comprising a main species HER2 antibody that comprises light chain and heavy chain amino acid sequences in SEQ ID NOs. 15 and 16 respectively and binds to domain II of HER2, and acidic variants of that main species HER2 antibody including a disulfide reduced variant, a non-reducible variant or both variants of the main species antibody, wherein the main species HER2 antibody is the antibody amino acid sequence structure in the composition which is the quantitatively predominant antibody molecule in the composition and the main species HER2 antibody and the acidic variants are all intact antibodies, and (2) evaluating the acidic variants in the composition, and confirming that the

amount thereof is less than about 25% of the total composition.

Claim 18. The method of claim 17, wherein the composition comprises a glycated variant, a deamidated variant, a disulfide reduced variant, a sialylated variant, and a non-reducible variant.

Claim 19. The method of claim 17 or claim 18, wherein step (2) comprises evaluating the acidic variants by a method selected from the group consisting of ion exchange chromatography wherein the composition is treated with sialidase, reduced capillary electrophoresis with sodium dodecyl sulfate (CE-SDS), non-reduced CE-SDS, boronate chromatography, and peptide mapping.

Claim 20. The method of claim 17 or claim 18, wherein step (2) comprises evaluating the acidic variants by ion exchange chromatography.

Claim 21. The method of claim 20 which comprises cation exchange chromatography using a cation exchanger with a carboxylate functional group.

Claim 22. The method of claim 21, wherein the conditions for the chromatography involve: Buffer A of 20 mM BisTris, pH 6.0; Buffer B of 20 mM BisTris, 200 mM NaCl, pH 6.0; and a gradient of 0.5% Buffer B at 1.0 mL/min.

Claim 23. The method of claim 17 or claim 18, comprising combining the composition after step (2) with a pharmaceutically acceptable carrier.

Claim 24. The method of claim 17 or claim 18, wherein the composition evaluated in step (2) is in a pharmaceutically acceptable carrier.

Claim 25. A composition produced by the method of claim 17 or claim 18.