

Claims

1. Use of a combination of a ErbB-2 targeting agent; and a bispecific antibody that comprises an antigen-binding site that can bind an epitope on domain I of ErbB-2 and an antigen-binding site that can bind an epitope on domain III of ErbB-3, in the manufacture of a medicament for the treatment of an individual that has an ErbB-2, ErbB-3 or ErbB-2/ErbB-3 positive tumor or is at risk of developing said tumor.
2. The use of claim 1, wherein the ErbB-2 targeting agent is an ErbB-2 binding agent inhibitor or an ErbB-2 inhibitor.
3. The use of claim 2, wherein the ErbB-2 inhibitor is a bivalent monospecific antibody that comprises antigen binding sites that can bind an epitope on an extracellular part of ErbB-2.
4. The use of claim 3, wherein the monospecific antibody and the bispecific antibody bind different epitopes on ErbB-2, preferably, on different extracellular ErbB-2 domains.
5. The use of claim 3, wherein the monospecific antibody can bind an epitope on ErbB-2 extracellular domain IV, domain III and/or domain II.
6. The use of any one of claims 3-5, wherein the monospecific antibody or bispecific antibody comprises a drug conjugate, preferably emtansine.
7. The use of any one of claims 3-6, wherein the monospecific antibody is Trastuzumab or Trastuzumab emtansine
8. The use of any one of claims 1-7, wherein the bispecific antibody comprises antibody PB4188.
9. The use of any one of claims 1-8, wherein the medicament further comprises a chemotherapy drug or wherein the medicament is for use in combination with a chemotherapy drug.

10. A pharmaceutical composition comprising a targeting agent of ErbB-2 and a bispecific antibody that comprises an antigen-binding site that can bind an epitope on domain I of ErbB-2 and an antigen-binding site that can bind an epitope on domain III of ErbB-3.
11. A kit of parts, comprising a targeting agent of ErbB-2 and a bispecific antibody that comprises an antigen-binding site that can bind an epitope on domain I of ErbB-2 and an antigen-binding site that can bind an epitope on domain III of ErbB-3.
12. A pharmaceutical composition according to claim 10 or a kit of parts according to claim 11, wherein the targeting agent of ErbB-2 is a binding agent or inhibitor of ErbB-2, preferably lapatinib or neratinib and, preferably wherein the targeting agent of ErbB-2 is a bivalent monospecific antibody that comprises antigen binding sites that can bind an epitope on an extracellular part of ErbB-2.
13. The use of any one of claims 1-9, wherein the affinity of the antigen-binding site for ErbB-3 of the bispecific antibody is equal to or higher than the affinity of the antigen-binding site for ErbB-2.
14. The use of claim 13, wherein the use further comprises administration of a targeting agent of ErbB-2, preferably lapatinib or neratinib.
15. The use of any one of claims 13-14, wherein the use further comprises administration of a targeting agent of ErbB-3, preferably wherein the targeting agent of ErbB-3 is an antibody, such as patritumab, MM-121 (seribantumab), or lumretuzumab and, preferably wherein the targeting agent of ErbB-3 is a bivalent monospecific antibody that comprises antigen binding sites that can bind an epitope on an extracellular part of ErbB-3.
16. The use of claim 15, wherein the monospecific bivalent antibody with antigen-binding sites that can bind an epitope on an extracellular part of ErbB-2 or an epitope on an extracellular part of ErbB-3 comprises a drug conjugate, preferably emtansine.

17. The use of claim 16, wherein the monospecific bivalent antibody with antigen-binding sites that can bind an epitope on an extracellular part of ErbB-2 is trastuzumab, pertuzumab or a biosimilar with the same variable domain amino acid sequence.
18. The use of any one of claims 13-17, wherein the bispecific antibody is antibody PB4188.