

CLAIMS

1. An immunoconjugate comprising an anti-CEACAM5-antibody for use for treating cancer in combination with cetuximab.  
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2. The immunoconjugate for the use of claim 1, wherein the anti-CEACAM5-antibody comprises a CDR-H1 consisting of SEQ ID NO: 1, CDR-H2 consisting of SEQ ID NO: 2, CDR-H3 consisting of SEQ ID NO: 3, CDR-L1 consisting of SEQ ID NO: 4, CDR-L2 consisting of amino acid sequence NTR, and CDR-L3 consisting of SEQ ID NO: 5.  
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3. The immunoconjugate for the use of claim 1 or 2, wherein the anti-CEACAM5-antibody comprises a variable domain of a heavy chain (VH) consisting of SEQ ID NO: 6 and a variable domain of a light chain (VL) consisting of SEQ ID NO: 7.  
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4. The immunoconjugate for the use of any of claims 1 to 3, wherein the anti-CEACAM5-antibody comprises a heavy chain (VH) consisting of SEQ ID NO: 8 and a light chain (VL) consisting of SEQ ID NO: 9.
- 20 5. The immunoconjugate for the use of any of claims 1 to 4, wherein the immunoconjugate comprises at least one cytostatic agent.
6. The immunoconjugate for the use of claim 5, wherein the cytostatic agent is selected from the group consisting of radioisotopes, protein toxins, small molecule toxins, and combinations thereof.  
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7. The immunoconjugate for the use of claim 6, wherein the small molecule toxins are selected from antimetabolites, DNA-alkylating agents, DNA-cross-linking agents, DNA-intercalating agents, anti-microtubule agents, topoisomerase inhibitors, and combinations thereof.  
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8. The immunoconjugate for the use of claim 7, wherein the anti-microtubule agent is selected from the group consisting of taxanes, vinca alkaloids, maytansinoids, colchicine, podophyllotoxin, griseofulvin, and combinations thereof.  
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9. The immunoconjugate for the use of claim 8, wherein the maytansinoids are selected from the group consisting of N2'-deacetyl-N2'-(3-mercapto-1-oxopropyl)-

maytansine (DM1) or N2'-deacetyl-N-2'-(4-methyl-4-mercapto-1-oxopentyl)-maytansine (DM4), and combinations thereof.

10. The immunoconjugate for the use of any of claims 1 to 9, wherein the anti-CEACAM5-antibody is covalently attached via a cleavable or non-cleavable linker to the at least one cytotoxic agent.
  11. The immunoconjugate for the use of claim 10, wherein said linker is selected from the group consisting of N-succinimidyl pyridyldithiobutyrate (SPDB), 4-(pyridin-2-yl)disulfanyl-2-sulfo-butyric acid (sulfo-SPDB), and succinimidyl(N-maleimidomethyl) cyclohexane-1-carboxylate (SMCC).
  12. The immunoconjugate for the use of any of claims 1 to 11, comprising an CEACAM5-antibody, which comprises a heavy chain (VH) consisting of SEQ ID NO: 8 and a light chain (VL) consisting of SEQ ID NO: 9 (huMAb2-3), and which is covalently linked to N2'-deacetyl-N-2'(4-methyl-4-mercapto-1-oxopentyl)-maytansine (DM4) via N-succinimidyl pyridyldithiobutyrate (SPDB).
  13. The immunoconjugate for the use of any of claims 1 to 12, wherein the immunoconjugate is characterised by a drug-to-antibody ratio (DAR) ranging from 1 to 10.
  14. The immunoconjugate for the use of any of claims 1 to 13, wherein the cancer is colorectal cancer.
  15. The immunoconjugate for the use of any of claims 1 to 14, wherein the immunoconjugate and cetuximab are administered simultaneously to a subject in need thereof.
  16. The immunoconjugate for the use of claim 15, wherein the immunoconjugate and cetuximab are formulated (i) in a single pharmaceutical composition comprising the immunoconjugate and cetuximab, or (ii) in the form of two separate pharmaceutical compositions, wherein one pharmaceutical composition comprises the immunoconjugate, and on the other pharmaceutical composition comprises cetuximab.

17. The immunoconjugate for the use of any of claims 1 to 14, wherein the immunoconjugate and cetuximab are administered separately or sequentially to a subject in need thereof.
- 5 18. The immunoconjugate for the use of claim 17, wherein the immunoconjugate and cetuximab are formulated in the form of two separate pharmaceutical compositions, wherein (i) one pharmaceutical composition comprises the immunoconjugate, and (ii) the other pharmaceutical composition comprises cetuximab.
- 10 19. The immunoconjugate for the use of any of claims 1 to 18, wherein the immunoconjugate comprising an anti-CEACAM5-antibody, and cetuximab are administered in 8 to 16 cycles wherein one cycle comprises:  
administering the immunoconjugate at a dosage of from 60 to 210 mg/m<sup>2</sup>, at least once in a cycle;  
15 administering cetuximab at a dosage of from 100 to 600 mg/m<sup>2</sup> at least once in a cycle.
20. A pharmaceutical composition comprising the immunoconjugate of any of claims 1 to 14, and cetuximab.
- 20 21. A kit comprising (i) a pharmaceutical composition of the immunoconjugate of any of claims 1 to 14 and (ii) a pharmaceutical composition comprising cetuximab.
- 25 22. The pharmaceutical composition according to claim 20 or the kit according to claim 21 for the use for treating cancer.