

CLAIMS

1. Use of:

(a) an antibody that is capable of binding and inhibiting the ATPase activity of a soluble extracellular domain human CD39 (NTPDase1) protein, in which the antibody comprises a HCDR1 comprising an amino acid sequence DYNMH (SEQ ID NO: 8); a HCDR2 comprising an amino acid sequence YIVPLNGGSTFNQKFKG (SEQ ID NO: 9); a HCDR3 comprising an amino acid sequence GGTRFAY (SEQ ID NO: 10); a LCDR1 comprising an amino acid sequence RASESVDNFGVVSFMY (SEQ ID NO: 11); a LCDR2 region comprising an amino acid sequence GASNQGS (SEQ ID NO: 12); and a LCDR3 region comprising an amino acid sequence QQTKEVPYT (SEQ ID NO: 13); and

(b) an antibody that neutralizes the 5'-ectonucleotidase activity of human CD73 in the preparation of a medicament for the treatment of a leukemia, a glioma or glioblastoma, or a cancer of the bladder, breast, colon, esophagus, kidney, liver, lung, ovary, uterus, prostate, pancreas, stomach, cervix, thyroid, head and neck or skin.

2. An antibody that is capable of binding and inhibiting the ATPase activity of a soluble extracellular domain human CD39 (NTPDase1) protein for use in the treatment of cancer in an individual having a CD73-positive leukemia, glioma or glioblastoma, or cancer of the bladder, breast, colon, esophagus, kidney, liver, lung, ovary, uterus, prostate, pancreas, stomach, cervix, thyroid, head and neck or skin, in which the antibody comprises a HCDR1 comprising an amino acid sequence DYNMH (SEQ ID NO: 8), a HCDR2 comprising an amino acid sequence YIVPLNGGSTFNQKFKG (SEQ ID NO: 9), a HCDR3 comprising an amino acid sequence GGTRFAY (SEQ ID NO: 10), a LCDR1 comprising an amino acid sequence RASESVDNFGVVSFMY (SEQ ID NO: 11), a LCDR2 region comprising an amino acid sequence GASNQGS (SEQ ID NO: 12) and a LCDR3 region comprising an amino acid sequence QQTKEVPYT (SEQ ID NO: 13).

3. An antibody for use according to Claim 2, in which an antibody that neutralizes the 5'-ectonucleotidase activity of human CD73 is to be administered to the individual.

4. An antibody for use according to Claim 1 or 3, in which the antibody that neutralizes the ATPase activity of human CD39 is to be administered prior to the administration of the antibody that neutralizes the 5'-ectonucleotidase activity of human CD73.
5. An antibody for use according to Claim 1, 3 or 4, in which the antibody that neutralizes the ATPase activity of human CD39 and the antibody that neutralizes the 5'-ectonucleotidase activity of CD73 are formulated for separate administration and are to be administered concurrently or sequentially.
6. An antibody for use according to any preceding claim, in which the antibody that is capable of binding and inhibiting the ATPase activity of a soluble extracellular domain human CD39 (NTPDase1) protein lacks an Fc domain or comprises an Fc domain that is modified to reduce binding between the Fc domain and an Fcγ receptor.
7. An antibody for use according to any of Claims 1 and 3 to 6, in which the antibody that neutralizes the 5'-ectonucleotidase activity of CD73 lacks an Fc domain or comprises an Fc domain that is modified to reduce binding between the Fc domain and an Fcγ receptor.
8. An antibody for use according to any preceding claim, in which the individual comprises tumor tissue and/or tumor adjacent tissue characterized by a high level of CD73-expressing cells.
9. An antibody for use according to any preceding claim, in which the individual has a cancer that has progressed or relapsed following prior treatment with an antibody that inhibits a human CD73 polypeptide.
10. An antibody for use according to any preceding claim, in which the individual has a solid tumor.
11. An antibody for use according to any preceding claim, in which the individual has an ovarian cancer.
12. An antibody for use according to any of Claims 1 to 10, in which the individual has a gastric cancer.
13. An antibody for use according to any of Claims 1 to 10, in which the individual has a lung cancer.

14. An antibody for use according to any of Claims 1 to 10, in which the individual has a colon cancer.
15. An antibody for use according to any of Claims 1 to 10, in which the individual has an esophageal cancer.