Claims:

1. Use of a carbonic anhydrase IX (CAIX) targeting compound in the manufacture of a medicament for the treatment of cancer expressing CAIX, wherein CAIX expression is to be quantified in at least one tumor sample provided from a subject to be treated, a CAIX score is to be determined based on the CAIX expression in the tumor sample, and the subject is to be treated if a predefined CAIX score is reached, wherein CAIX expression is to be quantified by tumor cell staining, preferably immunohistochemical staining, and wherein the CAIX score is to be determined and/or calculated by the formula: CAIX Score = (0 x percentage of viable tumor cells with no staining intensity) + (1 x percentage of viable tumor cells with faint staining intensity) + (2 x percentage of viable tumor cells with moderate staining intensity) + (3 x percentage of viable tumor cells with strong staining intensity).

2. The use according to Claim 1, wherein the expressed CAIX comprises a CAIX polypeptide or a fragment of a CAIX polypeptide.

3. The use according to Claim 1 or 2, wherein the expressed CAIX comprises an mRNA that encodes a CAIX polypeptide.

4. The use according to Claims 1-3, wherein the predefined CAIX score is ≥ 2.0.

5. The use according to Claims 1-4, wherein the predefined CAIX score is ≥ 2.6.

6. The use according to Claims 1-5, wherein the CAIX targeting compound is an anti-CAIX antibody.

7. The use according to Claim 6, wherein the anti-CAIX antibody is a G250 antibody.

8. The use according to Claims 1-7, wherein the CAIX targeting compound binds to the amino acid sequence LSTAFARV and/or ALGPGREYRAL.

9. The use according to Claims 1-8, wherein the CAIX targeting compound is the antibody girentuximab and/or a fragment thereof.

10. The use according to Claims 1-9, wherein the cancer is selected from the group comprising cervical carcinomas, esophageal carcinomas, gastric carcinomas, colorectal carcinomas, liver carcinomas, bladder carcinomas, lung carcinomas, head and neck cancer, billary carcinomas and renal cell carcinomas.

11. The use according to Claims 1-10, wherein the cancer is renal clear cell carcinoma (RCC).

12. The use according to Claims 1-11, wherein the medicament is to be used after the subject to be treated has undergone primary tumor resection.

13. The use according to Claims 1-12, wherein the medicament is to be used in an adjuvant therapy.

14. The use according to any of Claims 1-13, wherein the subject to be treated is human and/or has an age of less than 65 years.