

44. The GPRC5D x CD3 bispecific antibody or bispecific binding fragment of claim 43 wherein the antibody or bispecific binding fragment is IgG4 isotype.
45. The GPRC5D x CD3 bispecific antibody or bispecific binding fragment of claims 27 to 42 wherein the antibody or bispecific binding fragment thereof binds GPRC5D on the surface of human myeloma cells.
46. The GPRC5D x CD3 bispecific antibody or bispecific binding fragment of claims 27 to 42 wherein the antibody or bispecific binding fragment thereof binds GPRC5D on the surface of human multiple myeloma cells.
47. The GPRC5D x CD3 bispecific antibody or bispecific binding fragment of claim 27 to 42 wherein the antibody or bispecific binding fragment induces human T cell activation in vitro with an  $EC_{50}$  of less than about 0.22 nM.
48. The GPRC5D x CD3 bispecific antibody or bispecific binding fragment of claim 27 to 42 wherein the antibody or bispecific binding fragment induces T-cell dependent cytotoxicity of GPRC5D-expressing cells in vitro with an  $EC_{50}$  of less than about 0.89 nM.
49. An isolated cell expressing the antibody or bispecific binding fragment of any one of claims 27 to 42.
50. The cell of claim 49 wherein the cell is a hybridoma.
51. The cell of claim 49 wherein the antibody or bispecific binding fragment is recombinantly produced.
52. Use of a GPRC5D x CD3 bispecific antibody or bispecific binding fragment of any one of claims 27 to 42 for the manufacture of a medicament for the treatment of cancer.
53. Use of a GPRC5D x CD3 bispecific antibody or bispecific binding fragment of any one of claims 27 to 42 for the manufacture of a medicament for inhibiting growth or proliferation of cancer cells.
54. Use of a GPRC5D x CD3 bispecific antibody or bispecific binding fragment of any one of claims 27 to 42 for the manufacture of a medicament for redirecting a T cell to a GPRC5D-expressing cancer cell.

55. The use of claim 52, 53, or 54 wherein the cancer is a hematological cancer.
56. The use of claim 55 wherein the hematological cancer is a GPRC5D-expressing B cell cancer.
57. The use of claim 56 wherein the GPRC5D-expressing B cell cancer is multiple myeloma.
58. The use of claim 52 comprising administering a second therapeutic agent.
59. The use of claim 58 wherein the second therapeutic agent is a chemotherapeutic agent or a targeted anti-cancer therapy.
60. The use of claim 59 wherein the chemotherapeutic agent is cytarabine, an anthracycline, histamine dihydrochloride, or interleukin 2.
61. A pharmaceutical composition comprising the GPRC5D x CD3 bispecific antibody or bispecific binding fragment of any one of claims 27 to 42 and a pharmaceutically acceptable carrier.
62. A method for generating the GPRC5D x CD3 bispecific antibody or bispecific binding fragment of any one of claims 27 to 42 by culturing the cell of any one of claims 49 to 51.
63. An isolated synthetic polynucleotide encoding the HC1, the HC2, the LC1 or the LC2 of the GPRC5D x CD3 bispecific antibody or bispecific binding fragment of any one of claims 27 to 42.
64. A kit comprising the GPRC5D x CD3 bispecific antibody or bispecific binding fragment as defined in any one of claims 27 to 42 and/or a polynucleotide as defined in claim 63 and packaging for the same.