

Claims

1. Use of an anti-ILDR2 antibody, a fragment or derivative thereof, a modified antibody format, or an antibody mimetic in the manufacture of a medicament for use in combination therapy for treating cancer, wherein the anti-ILDR2 antibody, a fragment or derivative thereof, a modified antibody format, or an antibody mimetic comprises at least three CDR heavy chain sequences according to SEQ ID NO.1, SEQ ID NO.2 and SEQ ID NO.3 and three CDR light chain sequences according to SEQ ID NO.4, SEQ ID NO.5 and SEQ ID NO.6, wherein the medicament is to be administered in combination with a PD-1 antagonist.
2. The use according to claim 1, wherein the anti-ILDR2 antibody, fragment or derivative thereof, modified antibody format or antibody mimetic comprises
 - (i) at least one heavy chain variable region sequence that is at least 95 %, at least 96 %, at least 97 %, at least 98 %, at least 99 %, or 100 % identical to the sequence of SEQ ID NO.7, and/or
 - (ii) at least one light chain variable region sequence that is at least 95 %, at least 96 %, at least 97 %, at least 98 %, at least 99 %, or 100 % identical to the sequence of SEQ ID NO.8.
3. The use according to claim 1 or 2, wherein the anti-ILDR2 antibody, fragment or derivative thereof, modified antibody format or antibody mimetic comprises
 - (i) at least one heavy chain sequence that is at least 95 %, at least 96 %, at least 97 %, at least 98 %, at least 99 %, or 100 % identical to the sequence of SEQ ID NO.9; and/or
 - (ii) at least one light chain sequence that is at least 95 %, at least 96 %, at least 97 %, at least 98 %, at least 99 %, or 100 % identical to the sequence of SEQ ID NO.10.
4. The use according to any one of claims 1 to 3, wherein the PD-1 antagonist is an antibody, a fragment or derivative thereof, a modified antibody format, or an antibody mimetic, all of which having PD-1 binding properties.
5. The use according to any one of claims 1 to 4, wherein the PD-1 antagonist is selected from the group consisting of nivolumab (Opdivo, BMS-936558, MDX1106), pembrolizumab (Keytruda, MK-3475, lambrolizumab), PDR-001 (Novartis), JS001 (Shanghai Junshi Biosciences), STI-A1110, pidilizumab (Cure Tech), AMP-224 (GlaxoSmithKline), AMP-514 (GlaxoSmithKline), cemiplimab (Regeneron and Sanofi), BGB-A317 (BeiGene, China), SHR-1210 (Jiangsu Hengrui Medicine).

6. The use according to any one of claims 1 to 4, wherein the PD-1 antagonist is nivolumab (Opdivo, BMS-936558, MDX1106) or pembrolizumab (Keytruda, MK-3475, lambrolizumab), preferably pembrolizumab (Keytruda, MK-3475, lambrolizumab).
- 5 7. The use according to any one of claims 1 to 4, wherein the PD-1 antagonist comprises
 - i) at least three CDR heavy chain sequences according to SEQ ID NO.12, SEQ ID NO.13 and SEQ ID NO.14 and three CDR light chain sequences according to SEQ ID NO.16, SEQ ID NO.17 and SEQ ID NO.18; and/or
 - 10 ii) at least one heavy chain sequence that is at least 95 %, at least 96 %, at least 97 %, at least 98 %, at least 99 %, or 100 % identical to the sequence of SEQ ID NO.19; and/or
 - iii) at least one light chain sequence that is at least 95 %, at least 96 %, at least 97 %, at least 98 %, at least 99 %, or 100 % identical to the sequence of SEQ ID NO.20.
- 15 8. The use according to any one of claims 1-7, wherein at least one of the medicament and the PD-1 antagonist is to be administered in simultaneous, separate, or sequential combination with one or more pharmaceutical agents.
9. A combination for use as a medicament, comprising at least two components, component A and component B, and wherein
 - 20 i) component A is an anti-ILDR2 antibody, a fragment or derivative thereof, a modified antibody format, or an antibody mimetic as defined in any one of claims 1 to 3; and
 - ii) component B is a PD-1 antagonist as defined in any one of claims 4 to 7.
- 25 10. Use of at least two components, component A and component B, in the manufacture of a medicament for the treatment or prophylaxis of a neoplastic disease or an immune disease or disorder, wherein i) component A is an anti-ILDR2 antibody, a fragment or derivative thereof, a modified antibody format, or an antibody mimetic as defined in any one of claims 1 to 3; and ii) component B is a PD-1 antagonist as defined in any one of claims 4 to 7, wherein the medicament
 - 30 is to be administered in one or more therapeutically efficient dosages.
- 35 11. Use of an anti-ILDR2 antibody, a fragment or derivative thereof, a modified antibody format, or an antibody mimetic as defined in any one of claims 1 to 3 in the manufacture of a medicament for use in combination therapy for treating a neoplastic disease or an immune disease or disorder, wherein the medicament is to be simultaneously, concurrently, separately or sequentially administered in combination with a PD-1 antagonist as defined in any one of claims 4 to 7 in one or more therapeutically efficient dosages.

12. Use of an anti-ILDR2 antibody, a fragment or derivative thereof, a modified antibody format, or an antibody mimetic as defined in any one of claims 1 to 3 and a PD-1 antagonist as defined in any one of claims 4 to 7 in the manufacture of a medicament for the treatment of cancer.
- 5 13. A kit for use in combination therapy for treating a neoplastic disease or an immune disease or disorder, comprising
- i) an anti-ILDR2 antibody, a fragment or derivative thereof, a modified antibody format, or an antibody mimetic as defined in any one of claims 1 to 3;
 - ii) a PD-1 antagonist as defined in any one of claims 4 to 7; and
 - 10 iii) one or more further pharmaceutical agents.