(f) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 28, a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 29 or 695,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 30,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 31,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 32, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 33;

(g) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 127,
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 128,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 129,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 130,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 131, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 132;

(h) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 172,
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 173,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 174,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 175,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 176, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 177;
(i) a variable heavy chain CDR1 comprising an amino acid sequence of SEQ ID NO: 217, a variable heavy chain CDR2 comprising an amino acid sequence of SEQ ID NO: 218, a variable heavy chain CDR3 comprising an amino acid sequence of SEQ ID NO: 219, a variable light chain CDR1 comprising an amino acid sequence of SEQ ID NO: 220 a variable light chain CDR2 comprising an amino acid sequence of SEQ ID NO: 221, and a variable light chain CDR3 comprising an amino acid sequence of SEQ ID NO: 222; or
(j) a variable heavy chain CDR1 comprising an amino acid sequence of SEQ ID NO: 271, a variable heavy chain CDR2 comprising an amino acid sequence of SEQ ID NO: 272, a variable heavy chain CDR3 comprising an amino acid sequence of SEQ ID NO: 273, a variable light chain CDR1 comprising an amino acid sequence of SEQ ID NO: 274 a variable light chain CDR2 comprising an amino acid sequence of SEQ ID NO: 275, and a variable light chain CDR3 comprising an amino acid sequence of SEQ ID NO: 276.

**[009]** In another example, the present disclosure provides a chimeric antigen receptor comprising an extracellular domain, a transmembrane domain, and an intracellular domain, wherein the extracellular domain comprises a DLL3 antigen binding domain that specifically binds to DLL3, and wherein the antigen binding domain comprises: (a) a variable heavy chain CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 1, 10, 19, 28, 37, 46, 55, 64, 73, 82, 91, 100, 109, 118, 127, 136, 145, 154, 163, 172, 181, 190, 199, 208, 217, 226, 235, 244, 253, 262, 271, 280, 289, 298, 307, 316, 325, 334, 343, 352, 361, 370, 379, 388, 397, 406, 415, 424, 433, 442, 451, and 460; (b) a variable heavy chain CDR2 comprising an amino acid sequence selected from the group consisting of SEQ NOs: 2, 11, 20, 38, 47, 56, 65, 74, 83, 92, 101, 110, 119, 128, 137, 146, 155, 164, 173, 182, 191, 200, 209, 218, 227, 236, 245, 254, 263, 272, 281, 290, 299, 308, 317, 326, 335, 344, 353, 362, 371, 380, 389, 398, 407, 416, 425, 434, 443, 452, , and 695461; and (c) a variable heavy chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 3, 12, 21, 30, 39, 48, 57, 66, 75, 84, 93, 102, 111, 120, 129, 138, 147, 156, 165, 174, 183, 192, 201, 210, 219, 228, 237, 246, 255, 264, 273, 282, 291, 300, 309, 318, 327, 336, 345, 354, 363, 372, 381, 390, 399, 408, 417, 426, 435, 444, 453, and 462.
[009a] In another example, the present disclosure refers to a chimeric antigen receptor comprising an extracellular domain, a transmembrane domain, and an intracellular domain, wherein the extracellular domain comprises a DLL3 antigen binding domain that specifically binds to DLL3, and wherein the antigen binding domain comprises:

wherein the antigen binding domain comprises a sequence selected from the group consisting of SEQ ID NOS: 117, 261, 45, 54, 81, 36, 135, 180, 225, and 279.

**[014]** In another aspect, the present disclosure refers to a chimeric antigen receptor that specifically binds to DLL3, wherein the chimeric antigen receptor comprises an amino acid sequence that is 100% identical to any one of SEQ ID NOs: 494, 644, 510, 660, 486, 636, 487, 637, 490, 640, 485, 635, 496, 646, 501, 651, 506, 656, 512, and 662. In some examples, the chimeric antigen receptor comprises an amino acid sequence of any one of SEQ ID NOs: 482 to 533 and 632-683.

**[015]** In some examples, the present disclosure provides, a chimeric antigen receptor that specifically binds to DLL3, wherein the chimeric antigen receptor comprises an amino acid sequence that is at least about 80%, 85%, 90%, 95%, 96%, 98%, 99% or 100% identical to any one of SEQ ID NOs: 482 to 533 and 632-683, with or without a signal sequence. In some examples, the chimeric antigen receptor comprises an amino acid sequence of any one of SEQ ID NOs: 482 to 533 and 632-683, with or without a signal sequence.

**[016]** In some examples, the intracellular domain of the chimeric antigen receptor comprises at least one costimulatory domain.

**[017]** In some examples, the costimulatory domain of the chimeric antigen receptor is a signaling region of CD28, OX-40, 4-1BB/CD137, CD2, CD7, CD27, CD30, CD40, programmed death-1 (PD-1), inducible T cell costimulator (ICOS), lymphocyte function-associated antigen-1 (LFA-1 (CD1 1a/CD18), CD3 gamma, CD3 delta, CD3 epsilon, CD247, CD276 (B7-H3), LIGHT, (TNFSF14), NKG2C, Ig alpha (CD79a), DAP-10, Fc gamma receptor, MHC class I molecule, TNF receptor proteins, an Immunoglobulin protein, cytokine receptor, integrins, Signaling Lymphocytic Activation Molecules (SLAM proteins), activating NK cell receptors, BTLA, a Toll ligand receptors, ICAM-1, B7-H3, CDS, ICAM-1, GITR, BAFFR, LIGHT, HVEM (LIGHTR), KIRDS2, SLAMF7, NKp80 (KLRF1), NKp44, NKp30, NKp46, CD19, CD4, CD8alpha., CD8beta, IL-2R beta, IL-2R gamma, IL-7R alpha, ITGA4, VLA1, CD49a, ITGA4, CD49D, ITGA6, VLA-6, CD49f, ITGAD, CD1 1d, ITGAE, CD103, ITGAL, CD1 1a, LFA-1, ITGAM, CD1 1b, ITGAX, CD1 1c, ITGB1, CD29, ITGB2, CD18, LFA-1, ITGB7, NKG2D, TNFR2, TRANCE/RANKL, DNAMI (CD226), SLAMF4 (CD244, 2B4), CD84, CD96 (Tactile), CEACAM1, CRT AM, Ly9 (CD229), CD160 (BY55), PSGL1, CD100 (SEMA4D), CD69, SLAMF6 (NTB-A, Lyl08), SLAM (SLAMF1, CD150, IPO-3), BLAME (SLAMF8), SELPLG (CD162), LTBR, LAT, GADS, SLP-76, PAG/Cbp, CD19a, a ligand that specifically binds with CD83, or any combination thereof.

**[018]** In some examples, the costimulatory domain comprises a signaling region of CD28.

**[019]** In some examples, the CD28 costimulatory domain comprises SEQ ID NO: 550.

**[020]** In some examples, the costimulatory domain comprises a signaling region of 4-1BB/CD137.

a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 33;
(g) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 127, a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 128, a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 129, a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 130, a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 131, and a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 132;
(h) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 172, a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 173, a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 174, a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 175, a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 176, and a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 177;
(i) a variable heavy chain CDR1 comprising an amino acid sequence of SEQ ID NO: 217, a variable heavy chain CDR2 comprising an amino acid sequence of SEQ ID NO: 218, a variable heavy chain CDR3 comprising an amino acid sequence of SEQ ID NO: 219, a variable light chain CDR1 comprising an amino acid sequence of SEQ ID NO: 220 a variable light chain CDR2 comprising an amino acid sequence of SEQ ID NO: 221, and a variable light chain CDR3 comprising an amino acid sequence of SEQ ID NO: 222; or
(j) a variable heavy chain CDR1 comprising an amino acid sequence of SEQ ID NO: 271, a variable heavy chain CDR2 comprising an amino acid sequence of SEQ ID NO: 272, a variable heavy chain CDR3 comprising an amino acid sequence of SEQ ID NO: 273, a variable light chain CDR1 comprising an amino acid sequence of SEQ ID NO: 274 a variable light chain CDR2 comprising an amino acid sequence of SEQ ID NO: 275, and a variable light chain CDR3 comprising an amino acid sequence of SEQ ID NO: 276.

**[048]** In some examples, the anti-DLL3 binding agent is an antibody, an antibody conjugate, or an antigen-binding fragment thereof, optionally, a $F(ab')_2$ fragment, a Fab' fragment, a Fab fragment, a Fv fragment, a scFv fragment, a dsFv fragment, or a dAb fragment.
**[049]** In some examples, the binding agent is a monoclonal antibody comprising an IgG constant region.
**[050]** In some examples, the anti-DLL3 binding agent comprises a variable heavy (VH) chain sequence that is at least about 80%, 85%, 90%, 95%, 96%, 98%, 99% or 100% identical to a VH sequence provided in Table 1b.
**[051]** In some examples, the anti-DLL3 binding agent comprises a variable light (VL) chain sequence that is at least about 80%, 85%, 90%, 95%, 96%, 98%, 99% or 100% identical to a VL sequence provided in Table 1c.
**[052]** In some examples, the anti-DLL3 binding agent comprises a sequence that is at least about 80%, 85%, 90%, 95%, 96%, 98%, 99% or 100% identical to an scFv sequence presented in Table 1d.
**[053]** In some examples, the anti-DLL3 binding agent is a fusion protein comprising a scFv fragment fused to an Fc constant region.
**[054]** In another aspect, the present disclosure refers to a pharmaceutical composition comprising the anti-DLL3 binding agent disclosed herein and a pharmaceutically acceptable excipient.

## WHAT IS CLAIMED IS

**1.** A chimeric antigen receptor comprising an extracellular domain, a transmembrane domain, and an intracellular domain, wherein the extracellular domain comprises a DLL3 antigen binding domain that specifically binds to DLL3, and wherein the antigen binding domain comprises:

(a) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 109;
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 110;
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 111;
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 112;
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 113; and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 114;

(b) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 253, a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 254,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 255,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 256,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 257,
and a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 258;

(c) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 37,
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 38,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 39,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 40,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 41, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 42;

(d) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 46, a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 47,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 48,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 49,

a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 50, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 51;

(e) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 73,
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 74,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 75,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 76 or 696,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 77, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 78;

(f) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 28,
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 29 or 695,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 30,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 31,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 32, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 33;

(g) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 127, a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 128,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 129,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 130,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 131, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 132;

(h) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 172, a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 173,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 174,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 175,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 176, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 177;

(i) a variable heavy chain CDR1 comprising an amino acid sequence of SEQ ID NO: 217, a variable heavy chain CDR2 comprising an amino acid sequence of SEQ ID NO: 218, a variable heavy chain CDR3 comprising an amino acid sequence of SEQ ID NO: 219, a variable light chain CDR1 comprising an amino acid sequence of SEQ ID NO: 220 a variable light chain CDR2 comprising an amino acid sequence of SEQ ID NO: 221, and a variable light chain CDR3 comprising an amino acid sequence of SEQ ID NO: 222; or

(j) a variable heavy chain CDR1 comprising an amino acid sequence of SEQ ID NO: 271, a variable heavy chain CDR2 comprising an amino acid sequence of SEQ ID NO: 272, a variable heavy chain CDR3 comprising an amino acid sequence of SEQ ID NO: 273, a variable light chain CDR1 comprising an amino acid sequence of SEQ ID NO: 274 a variable light chain CDR2 comprising an amino acid sequence of SEQ ID NO: 275, and a variable light chain CDR3 comprising an amino acid sequence of SEQ ID NO: 276.

**2.** A chimeric antigen receptor comprising an extracellular domain, a transmembrane domain, and an intracellular domain, wherein the extracellular domain comprises a DLL3 antigen binding domain that specifically binds to DLL3, and wherein the antigen binding domain comprises:

(a) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 115 and a variable light chain comprising an amino acid sequence according to SEQ ID NO: 116;
(b) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 259 and a variable light chain comprising an amino acid sequence according to SEQ ID NO: 260,
(c) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 43 and a variable light chain comprising an amino acid sequence according to SEQ ID NO: 44,
(d) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 52 and a variable light chain comprising an amino acid sequence according to SEQ ID NO: 53,
(e) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 79 and a variable light chain comprising an amino acid sequence according to SEQ ID NO: 80,
(f) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 34 and a variable light chain comprising an amino acid sequence according to SEQ ID NO: 35,
(g) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 133 and a variable light chain comprising an amino acid sequence according to SEQ ID NO: 134,
(h) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 178 and a variable light chain comprising an amino acid sequence according to SEQ ID NO: 179,
(i) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 223 and a variable light chain comprising an amino acid sequence according to SEQ ID NO: 224; or

(j) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 277 and a variable light chain comprising an amino acid sequence according to SEQ ID NO: 278,

wherein the variable heavy chain and the variable light chain are linked by at least one linker.

**3.** A chimeric antigen receptor comprising an extracellular domain, a transmembrane domain, and an intracellular domain, wherein the extracellular domain comprises a DLL3 antigen binding domain that specifically binds to DLL3, and wherein the antigen binding domain comprises a sequence selected from the group consisting of SEQ ID NOS: 117, 261, 45, 54, 81, 36, 135, 180, 225, and 279.

**4.** A chimeric antigen receptor that specifically binds to DLL3, wherein the chimeric antigen receptor comprises an amino acid sequence that is 100% identical to any one of SEQ ID NOs: 494, 644, 510, 660, 486, 636, 487, 637, 490, 640, 485, 635, 496, 646, 501, 651, 506, 656, 512, and 662.

**5.** The chimeric antigen receptor of any one of claims 1 to 4, wherein the intracellular domain comprises at least one costimulatory domain.

**6.** The chimeric antigen receptor of claim 5, wherein the costimulatory domain is a signaling region of CD28, OX-40, 4-1BB/CD137, CD2, CD7, CD27, CD30, CD40, programmed death-1 (PD-1), inducible T cell costimulator (ICOS), lymphocyte function-associated antigen-1 (LFA-1 (CD1 1a/CD18), CD3 gamma, CD3 delta, CD3 epsilon, CD247, CD276 (B7-H3), LIGHT, (TNFSF14), NKG2C, Ig alpha (CD79a), DAP-10, Fc gamma receptor, MHC class I molecule, TNF receptor proteins, an Immunoglobulin protein, cytokine receptor, integrins, Signaling Lymphocytic Activation Molecules (SLAM proteins), activating NK cell receptors, BTLA, a Toll ligand receptors, ICAM-1, B7-H3, CDS, ICAM-1, GITR, BAFFR, LIGHT, HVEM (LIGHTR), KIRDS2, SLAMF7, NKp80 (KLRF1), NKp44, NKp30, NKp46, CD19, CD4, CD8alpha., CD8beta, IL-2R beta, IL-2R gamma, IL-7R alpha, ITGA4, VLA1, CD49a, ITGA4, CD49D, ITGA6, VLA-6, CD49f, ITGAD, CD1 1d, ITGAE, CD103, ITGAL, CD1 1a, LFA-1, ITGAM, CD1 1b, ITGAX, CD1 1c, ITGB1, CD29, ITGB2, CD18, LFA-1, ITGB7, NKG2D, TNFR2, TRANCE/RANKL, DNAMI (CD226), SLAMF4 (CD244, 2B4), CD84, CD96 (Tactile), CEACAM1, CRT AM, Ly9 (CD229), CD160 (BY55), PSGL1, CD100 (SEMA4D), CD69, SLAMF6 (NTB-A, Lyl08), SLAM (SLAMF1, CD150, IPO-3), BLAME (SLAMF8), SELPLG (CD162), LTBR, LAT, GADS, SLP-76, PAG/Cbp, CD19a, a ligand that specifically binds with CD83, or any combination thereof.

**7.** The chimeric antigen receptor of claim 6, wherein the costimulatory domain comprises a signaling region of 4-1BB/CD137.

**8.** The chimeric antigen receptor of claim 7, wherein the 4-1BB/CD137costimulatory domain comprises SEQ ID NO: 480.

**9.** The chimeric antigen receptor of any one of claims 1 to 8, wherein the intracellular domain comprises at least one activating domain.

**10.** The chimeric antigen receptor of claim 9, wherein the activating domain comprises CD3.

**11.** The chimeric antigen receptor of claim 10, wherein the CD3 comprises CD3 zeta.

**12.** The chimeric antigen receptor of claim 11, wherein the CD3 zeta comprises SEQ ID NO: 481.

**13.** The chimeric antigen receptor of claim 1, further comprising a hinge domain.

**14.** The chimeric antigen receptor of claim 13, wherein the hinge domain is a selected from a CD8 hinge domain, a CD4 hinge domain, a CD28 hinge domain, a 4-1BB hinge domain, or an IgG hinge domain.

**15.** The chimeric antigen receptor of claim 13, wherein the hinge domain is a CD8 hinge domain.

**16.** The chimeric antigen receptor of claim 13, wherein the CD8 hinge domain is a CD8alpha hinge domain.

**17.** The chimeric antigen receptor of claim 13, wherein the hinge domain is a CD28 hinge domain.

**18.** The chimeric antigen receptor of claim 1, wherein the transmembrane domain is selected from a CD8 transmembrane domain, a CD4 transmembrane domain, a CD28 transmembrane domain, or a 4-1BB transmembrane domain.

**19.** The chimeric antigen receptor of claim 18, wherein the transmembrane domain is a CD8 transmembrane domain.

**20.** The chimeric antigen receptor of claim 18, wherein the CD8 transmembrane domain is a CD8alpha transmembrane domain.

**21.** The chimeric antigen receptor of claim 18, wherein the transmembrane domain is a CD28 transmembrane domain.

**22.** The chimeric antigen receptor of any one of claims 1-21, wherein the chimeric antigen receptor is encoded by the polynucleotide sequence of any one of SEQ ID NOs: 573, 574, 575, 578, 582, 584, 589, 594, 598, and 600.

**23.** The chimeric antigen receptor of any one of claims 1-22, further comprising a safety switch.

**24.** The chimeric antigen receptor of claim 23, wherein the safety switch comprises a CD20 mimotope or a QBEND-10 epitope.

**25.** The chimeric antigen receptor of claim 24, wherein the safety switch comprises one or more CD20 mimotopes or one or more QBEND-10 epitopes, or combinations thereof.

**26.** The chimeric antigen receptor of any one of claims 23-25, wherein the chimeric antigen receptor comprises one or more safety switch in the format of

a) QR3 comprising CD8α signal sequence – linker- CD20 mimotope – linker – anti-DLL3 ScFv – linker – CD20 mimotope – linker - QBEND-10 epitope – linker – CD20 mimotope – hinge and transmembrane regions of human CD8 α molecule – 41BB signaling domain – CD3ζ signaling domain,
b) SR2 comprising CD8α signal sequence – anti-DLL3 ScFv – linker – CD20 mimotope – linker – CD20 mimotope –linker - hinge and transmembrane regions of human CD8α molecule – 41BB signaling domain – CD3ζ signaling domain,
c) RSR comprising CD8α signal sequence — linker – CD20 mimotope – linker– anti-DLL3 ScFv – linker – CD20 mimotope – linker–hinge and transmembrane regions of human CD8α molecule – 41BB signaling domain – CD3ζ signaling domain, or
d) R2S comprising CD8α signal sequence — linker – CD20 mimotope – linker– CD20 mimotope – linker - anti-DLL3 ScFv– linker–hinge and transmembrane regions of human CD8 α molecule – 41BB signaling domain – CD3ζ signaling domain.

**27.** The chimeric antigen receptor of any one of claims 23-26, wherein the chimeric antigen receptor comprises the amino acid sequence that is 100% identical to any one of SEQ ID NOs: 622-625, 684-687, 626-628, 688-690, 474-476, 565, and 692-694.

**28.** An isolated polynucleotide encoding any one of the chimeric antigen receptors of claims 1 to 27.

**29.** A vector comprising the polynucleotide of claim 28.

**30.** The vector of claim 26, wherein the vector is a retroviral vector, a DNA vector, a plasmid, a RNA vector, an adenoviral vector, an adenovirus associated vector, a lentiviral vector, or any combination thereof.

**31.** An engineered immune cell expressing any one of the chimeric antigen receptors of claims 1 to 27.

**32.** An engineered immune cell expressing the polynucleotide of claim 28 or vector of claim 29 or 30.

**33.** The engineered immune cell of claim 31 or 32, wherein the immune cell is a T cell, tumor infiltrating lymphocyte (TIL), NK cell, TCR-expressing cell, dendritic cell, or NK-T cell.

**34.** The engineered immune cell of claim 33, wherein the cell is an autologous T cell.

**35.** The engineered immune cell of claim 33, wherein the cell is an allogeneic T cell.

**36.** A pharmaceutical composition comprising the engineered immune cell of any one of claims 31-35.

**37.** Use of the engineered immune cell of any one of claims 31-35, or the pharmaceutical composition of claim 30 in the manufacture of a medicament for treating a disease or disorder in a subject in need thereof.

**38.** The use of claim 37, wherein the disease or disorder is cancer.

**39.** The use of claim 37 or 38, wherein the disease or disorder is small cell lung cancer.

**40.** An article of manufacture comprising the engineered immune cell of any one of claims 32-35, or the pharmaceutical composition of claim 36.

**41.** An anti-DLL3 binding agent comprising

(a) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 109;
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 110;
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 111;
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 112;
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 113; and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 114;

(b) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 253,
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 254,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 255,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 256,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 257, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 258;

(c) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 37,
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 38,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 39,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 40,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 41, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 42;

(d) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 46,
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 47,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 48,
a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 49,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 50, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 51;

(e) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 73, a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 74, a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 75, a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 76 or 696,
a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 77, and a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 78;

(f) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 28, a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 29 or 695,
a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 30, a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 31, a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 32, and a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 33;

(g) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 127,
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 128, a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 129, a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 130, a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 131, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 132;

(h) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 172,
a variable heavy chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 173, a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 174, a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 175, a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 176, and
a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 177;

(i) a variable heavy chain CDR1 comprising an amino acid sequence of SEQ ID NO: 217, a variable heavy chain CDR2 comprising an amino acid sequence of SEQ ID NO: 218, a variable heavy chain CDR3 comprising an amino acid sequence of SEQ ID NO: 219, a variable light chain

CDR1 comprising an amino acid sequence of SEQ ID NO: 220 a variable light chain CDR2 comprising an amino acid sequence of SEQ ID NO: 221, and a variable light chain CDR3 comprising an amino acid sequence of SEQ ID NO: 222; or

(j) a variable heavy chain CDR1 comprising an amino acid sequence of SEQ ID NO: 271, a variable heavy chain CDR2 comprising an amino acid sequence of SEQ ID NO: 272, a variable heavy chain CDR3 comprising an amino acid sequence of SEQ ID NO: 273, a variable light chain CDR1 comprising an amino acid sequence of SEQ ID NO: 274 a variable light chain CDR2 comprising an amino acid sequence of SEQ ID NO: 275, and a variable light chain CDR3 comprising an amino acid sequence of SEQ ID NO: 276.

**42.** The anti-DLL3 binding agent of claim 41, wherein the binding agent is an antibody, an antibody conjugate, or an antigen-binding fragment thereof, optionally, a $F(ab')_2$ fragment, a Fab' fragment, a Fab fragment, a Fv fragment, a scFv fragment, a dsFv fragment, or a dAb fragment.

**43.** The anti-DLL3 binding agent of claim 42, wherein the binding agent is a monoclonal antibody comprising an IgG constant region.

**44.** The anti-DLL3 binding agent of any one of claims 41-43, comprising a variable heavy (VH) chain sequence that is 100% identical to a VH sequence selected from the group consisting of SEQ ID NOs: 115, 259, 43, 52, 79, 34, 133, 178, 223, and 277.

**45.** The anti-DLL3 binding agent of any one of claims 41-44, comprising a variable light (VL) chain sequence that is 100% identical to a VL sequence selected from the group consisting of SEQ ID NOs: 116, 260, 44, 53, 80, 35, 134, 179, 224, and 278.

**46.** The anti-DLL3 binding agent of any one of claims 41-45, wherein the binding agent comprises a sequence that is 100% identical to an scFv sequence selected from the group consisting of SEQ ID NOs: 117, 261, 45, 54, 81, 36, 135, 180, 225, and 279.

**47.** The anti-DLL3 binding agent of any one of claims 41-46, wherein the binding agent is a fusion protein comprising a scFv fragment fused to an Fc constant region.

**48.** A pharmaceutical composition comprising the anti-DLL3 binding agent of any one of claims 41-47 and a pharmaceutically acceptable excipient.

**49.** Use of an anti-DLL3 binding agent of any one of claims 41-47, or the pharmaceutical composition of claim 48 in the manufacture of a medicament for treating a disease or disorder in a subject in need thereof.

**50.** The use of claim 49, wherein the disease or disorder is cancer.

**51.** The use of claim 49 or 50, wherein the disease or disorder is small cell lung cancer.