

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; (d) a variable light chain CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 4, 13, 22, 31, 40, 49, 58, 67, 85, 94, 103, 112, 121, 130, 139, 148, 157, 166, 175, 184, 193, 202, 211, 220, 229, 238, 247, 256, 265, 274, 283, 292, 301, 310, 319, 328, 337, 346, 355, 364, 373, 382, 391, 400, 409, 418, 427, 436, 445, 454, 463, and 696; (e) a variable light chain CDR2 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 5, 14, 23, 32, 41, 50, 59, 68, 77, 86, 95, 104, 113, 122, 131, 140, 149, 158, 167, 176, 185, 194, 203, 212, 221, 230, 239, 248, 257, 266, 275, 284, 293, 302, 311, 320, 329, 338, 347, 356, 365, 374, 383, 392, 401, 410, 419, 428, 437, 446, 455, and 464; and (f) a variable light chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 6, 15, 24, 33, 42, 51, 60, 69, 78, 87, 96, 105, 114, 123, 132, 141, 150, 159, 168, 177, 186, 195, 204, 213, 222, 231, 240, 249, 258, 267, 276, 285, 294, 303, 312, 321, 330, 339, 348, 357, 366, 375, 384, 393, 402, 411, 420, 429, 438, 447, 456, and 465.

[008a] In one aspect, 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 ~~at least one of~~:

(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: 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;

(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.

(a) a variable heavy chain CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs 109, 253, 1, 10, 19, 28, 37, 46, 55, 64, 73, 82, 91, 100, 118, 127, 136, 145, 154, 163, 172, 181, 190, 199, 208, 217, 226, 235, 244, 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: 110, 254, 2, 11, 20, 38, 47, 56, 65, 74, 83, 92, 101, 119, 128, 137, 146, 155, 164, 173, 182, 191, 200, 209, 218, 227, 236, 245, 263, 272, 281, 290, 299, 308, 317, 326, 335, 344, 353, 362, 371, 380, 389, 398, 407, 416, 425, 434, 443, 452, 461, and 695;

(c) a variable heavy chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs 111, 255, 3, 12, 21, 30, 39, 48, 57, 66, 75, 84, 93, 102, 120, 129, 138, 147, 156, 165, 174, 183, 192, 201, 210, 219, 228, 237, 246, 264, 273, 282, 291, 300, 309, 318, 327, 336, 345, 354, 363, 372, 381, 390, 399, 408, 417, 426, 435, 444, 453, and 462;

(d) a variable light chain CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 112, 256, 4, 13, 22, 31, 40, 49, 58, 67, 85, 94, 103, 121, 130, 139, 148, 157, 166, 175, 184, 193, 202, 211, 220, 229, 238, 247, 265, 274, 283, 292, 301, 310, 319, 328, 337, 346, 355, 364, 373, 382, 391, 400, 409, 418, 427, 436, 445, 454, 463, and 696;

~~(e) a variable light chain CDR2 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 113, 257, 5, 14, 23, 32, 41, 50, 59, 68, 77, 86, 95, 104, 122, 131, 140, 149, 158, 167, 176, 185, 194, 203, 212, 221, 230, 239, 248, 266, 275, 284, 293, 302, 311, 320, 329, 338, 347, 356, 365, 374, 383, 392, 401, 410, 419, 428, 437, 446, 455, and 464; and~~

~~5 ——— (f) a variable light chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 114, 258, 6, 15, 24, 33, 42, 51, 60, 69, 78, 87, 96, 105, 123, 132, 141, 150, 159, 168, 177, 186, 195, 204, 213, 222, 231, 240, 249, 267, 276, 285, 294, 303, 312, 321, 330, 339, 348, 357, 366, 375, 384, 393, 402, 411, 420, 429, 438, 447, 456, and 465.~~

[009] In another example, the present disclosure provides a chimeric antigen receptor

10 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, 15 253, 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; 20 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 ~~aspect~~~~example~~, the present disclosure refers to a chimeric antigen receptor

25 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: 109, 253, 1, 10, 19, 28, 37, 46, 55, 64, 73, 82, 91, 100, 118, 127, 30 136, 145, 154, 163, 172, 181, 190, 199, 208, 217, 226, 235, 244, 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: 110, 254, 2, 11, 20, 38, 47, 56, 65, 74, 83, 92, 101, 119, 128, 137, 146, 155, 164, 173, 182, 191, 200, 209, 218, 227, 236, 245, 263, 272, 281, 290, 299, 308, 317, 326, 35 335, 344, 353, 362, 371, 380, 389, 398, 407, 416, 425, 434, 443, 452, 461, and 695; and

(c) a variable heavy chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 111, 255, 3, 12, 21, 30, 39, 48, 57, 66, 75, 84, 93, 102, 120, 129, 138, 147, 156, 165, 174, 183, 192, 201, 210, 219, 228, 237, 246, 264, 273, 282, 291, 300, 309, 318, 327, 336, 345, 354, 363, 372, 381, 390, 399, 408, 417, 426, 435, 444, 453, and 462.

40 **[010]** In one 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 light chain CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 4, 13, 22, 31, 40, 49, 58, 45 67, 85, 94, 103, 112, 121, 130, 139, 148, 157, 166, 175, 184, 193, 202, 211, 220, 229, 238, 247, 256,

265, 274, 283, 292, 301, 310, 319, 328, 337, 346, 355, 364, 373, 382, 391, 400, 409, 418, 427, 436, 445, 454, 463, and 696; (b) a variable light chain CDR2 comprising an amino acid sequence selected from the group consisting of SEQ NOs: 5, 14, 23, 32, 41, 50, 59, 68, 77, 86, 95, 104, 113, 122, 131, 140, 149, 158, 167, 176, 185, 194, 203, 212, 221, 230, 239, 248, 257, 266, 275, 284, 293, 302, 311, 320, 329, 338, 347, 356, 365, 374, 383, 392, 401, 410, 419, 428, 437, 446, 455, and 464; and (c) a variable light chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 6, 15, 24, 33, 42, 51, 60, 69, 78, 87, 96, 105, 114, 123, 132, 141, 150, 159, 168, 177, 186, 195, 204, 213, 222, 231, 240, 249, 258, 267, 276, 285, 294, 303, 312, 321, 330, 339, 348, 357, 366, 375, 384, 393, 402, 411, 420, 429, 438, 447, 456, and 465.

[010a] In another aspectexample, 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:

(a) a variable light chain CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 112, 256, 4, 13, 22, 31, 40, 49, 58, 67, 85, 94, 103, 121, 130, 139, 148, 157, 166, 175, 184, 193, 202, 211, 220, 229, 238, 247, 265, 274, 283, 292, 301, 310, 319, 328, 337, 346, 355, 364, 373, 382, 391, 400, 409, 418, 427, 436, 445, 454, 463, and 696;

(b) a variable light chain CDR2 comprising an amino acid sequence selected from the group consisting of SEQ NOs: 113, 257, 5, 14, 23, 32, 41, 50, 59, 68, 77, 86, 95, 104, 122, 131, 140, 149, 158, 167, 176, 185, 194, 203, 212, 221, 230, 239, 248, 266, 275, 284, 293, 302, 311, 320, 329, 338, 347, 356, 365, 374, 383, 392, 401, 410, 419, 428, 437, 446, 455, and 464; and

(c) a variable light chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 114, 258, 6, 15, 24, 33, 42, 51, 60, 69, 78, 87, 96, 105, 123, 132, 141, 150, 159, 168, 177, 186, 195, 204, 213, 222, 231, 240, 249, 267, 276, 285, 294, 303, 312, 321, 330, 339, 348, 357, 366, 375, 384, 393, 402, 411, 420, 429, 438, 447, 456, and 465.

[011] 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 at least one of: (a) a variable heavy chain comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 7, 16, 25, 34, 43, 52, 61, 70, 79, 88, 97, 106, 115, 124, 133, 142, 151, 160, 169, 178, 187, 196, 205, 214, 223,

232, 241, 250, 259, 268, 277, 286, 295, 304, 313, 322, 331, 340, 349, 358, 367, 376, 385, 394, 403, 412, 421, 430, 439, 448, 457, 466; and (b) a variable light chain comprising an amino acid sequence selected from the group consisting of SEQ NOs: 8, 17, 26, 35, 44, 53, 62, 71, 80, 89, 98, 107, 116, 125, 134, 143, 152, 161, 170, 179, 188, 197, 206, 215, 224, 233, 242, 251, 260, 269, 278, 287, 296, 305, 314, 323, 332, 341, 350, 359, 368, 377, 386, 395, 404, 413, 422, 431, 440, 449, 458, and 467, wherein the variable heavy chain and the variable light chain is linked by at least one linker.

[011a] In another aspect, 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 ~~at least one of~~:

(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,

~~(a) a variable heavy chain comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 115, 259, 7, 16, 25, 34, 43, 52, 61, 70, 79, 88, 97, 106, 124, 133, 142, 151, 160, 169, 178, 187, 196, 205, 214, 223, 232, 241, 250, 268, 277, 286, 295, 304, 313, 322, 331, 340, 349, 358, 367, 376, 385, 394, 403, 412, 421, 430, 439, 448, 457, 466; and~~

~~(b) a variable light chain comprising an amino acid sequence selected from the group consisting of SEQ NOs: 116, 260, 8, 17, 26, 35, 44, 53, 62, 71, 80, 89, 98, 107, 125, 134, 143, 152, 161, 170, 179, 188, 197, 206, 215, 224, 233, 242, 251, 269, 278, 287, 296, 305, 314, 323, 332, 341, 350, 359, 368, 377, 386, 395, 404, 413, 422, 431, 440, 449, 458, and 467,~~

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

[012] In a further 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 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 7, 16, 25, 34, 43, 52, 61, 70, 79, 88, 97, 106, 115, 124, 133, 142, 151, 160, 169, 178, 187, 196, 205, 214, 223, 232, 241, 250, 259, 268, 277, 286, 295, 304, 313, 322, 331, 340, 349, 358, 367, 376, 385, 394, 403, 412, 421, 430, 439, 448, 457, and 466; and (b) a variable light chain comprising an amino acid sequence selected from the group consisting of SEQ NOs: 8, 17, 26, 35, 44, 53, 62, 71, 80, 89, 98, 107, 116, 125, 134, 143, 152, 161, 170, 179, 188, 197, 206, 215, 224, 233, 242, 251, 260, 269, 278, 287, 296, 305, 314, 323, 332, 341, 350, 359, 368, 377, 386, 395, 404, 413, 422, 431, 440, 449, 458, and 467, wherein the variable heavy chain and the variable light chain is linked by at least one linker.

[012a] In another ~~aspect~~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:

(a) a variable heavy chain comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 115, 259, 7, 16, 25, 34, 43, 52, 61, 70, 79, 88, 97, 106, 124, 133, 142, 151, 160, 169, 178, 187, 196, 205, 214, 223, 232, 241, 250, 268, 277, 286, 295, 304, 313, 322, 331, 340, 349, 358, 367, 376, 385, 394, 403, 412, 421, 430, 439, 448, 457, and 466; and

(b) a variable light chain comprising an amino acid sequence selected from the group consisting of SEQ NOs: 116, 260, 8, 17, 26, 35, 44, 53, 62, 71, 80, 89, 98, 107, 125, 134, 143, 152, 161, 170, 179, 188, 197, 206, 215, 224, 233, 242, 251, 269, 278, 287, 296, 305, 314, 323, 332, 341, 350, 359, 368, 377, 386, 395, 404, 413, 422, 431, 440, 449, 458, and 467,

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

[013] In another aspect, 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 a sequence selected from the group consisting of SEQ ID NOS: 117, 261, 45, 54, 81, 36, 135, 180, 225, and 279 ~~those set forth presented in Table 1d.~~

[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 at least about 80%, 85%, 90%, 95%, 96%, 98%, 99% or 100% identical to any one of SEQ ID NOS: 494, 644, 582, 510, 598, 660, 486, 636, 574, 487, 637, 575, 490, 640, 578, 485, 635, 573, 496, 646, 584, 501, 651, 589, 506, 656, 512, and 662 ~~482 to 533 and 632-683~~. 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.

[040] In some examples, the engineered immune cell is an allogeneic T cell.

[041] In some examples, the engineered immune cell is TCR (e.g., TCR α , TCR β) knocked out.

[042] In one example, the present disclosure provides a pharmaceutical composition comprising the engineered immune cell expressing a chimeric antigen receptors described herein.

[042a] In another aspect, the present disclosure refers to a pharmaceutical composition comprising the engineered immune cell as disclosed herein.

[043] In some examples, the present disclosure provides a method of treating a disease or disorder in a subject in need thereof comprising administering to the subject the engineered immune cell or the pharmaceutical composition comprising the engineered immune cell expressing a chimeric antigen receptors described herein.

[043a] In another aspect, the present disclosure refers to use of the engineered immune cell as disclosed herein, or the pharmaceutical composition as disclosed herein in the manufacture of a medicament for treating a disease or disorder in a subject in need thereof.

[044] In some examples, the disease or disorder is cancer.

[045] In some examples, the disease or disorder is small cell lung cancer.

[046] In some examples, the present disclosure provides an article of manufacture comprising the engineered immune cell or the pharmaceutical composition comprising the engineered immune cell expressing a chimeric antigen receptors described herein.

[046a] In another aspect, the present disclosure refers to an article of manufacture comprising the engineered immune cell as disclosed herein, or the pharmaceutical composition as disclosed herein.

[047] In some examples, the present disclosure provides an anti-DLL3 binding agent disclosed herein.

[047a] In another aspect, the present disclosure refers to 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: 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;
 (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.
 (a) a variable heavy chain CDR1 comprising an amino acid sequence selected from the group
 consisting of SEQ ID NOs 109, 253, 1, 10, 19, 28, 37, 46, 55, 64, 73, 82, 91, 100, 118, 127, 136, 145, 154, 163,
 172, 181, 190, 199, 208, 217, 226, 235, 244, 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 ID NOs: 110, 254, 2, 11, 20, 38, 47, 56, 65, 74, 83, 92, 101, 119, 128, 137, 146, 155, 164, 173,
 182, 191, 200, 209, 218, 227, 236, 245, 263, 272, 281, 290, 299, 308, 317, 326, 335, 344, 353, 362, 371, 380,
 389, 398, 407, 416, 425, 434, 443, 452, 461, and 469;
 (c) a variable heavy chain CDR3 comprising an amino acid sequence selected from the group
 consisting of SEQ ID NOs 111, 255, 3, 12, 21, 30, 39, 48, 57, 66, 75, 84, 93, 102, 120, 129, 138, 147, 156, 165,
 174, 183, 192, 201, 210, 219, 228, 237, 246, 264, 273, 282, 291, 300, 309, 318, 327, 336, 345, 354, 363, 372,
 381, 390, 399, 408, 417, 426, 435, 444, 453, and 462;
 (d) a variable light chain CDR1 comprising an amino acid sequence selected from the group consisting
 of SEQ ID NOs: 112, 256, 4, 13, 22, 31, 40, 49, 58, 67, 85, 94, 103, 121, 130, 139, 148, 157, 166, 175, 184, 193,
 202, 211, 220, 229, 238, 247, 265, 274, 283, 292, 301, 310, 319, 328, 337, 346, 355, 364, 373, 382, 391, 400,
 409, 418, 427, 436, 445, 454, 463, and 469;
 (e) a variable light chain CDR2 comprising an amino acid sequence selected from the group consisting
 of SEQ ID NOs: 113, 257, 5, 14, 23, 32, 41, 50, 59, 68, 77, 86, 95, 104, 122, 131, 140, 149, 158, 167, 176, 185,
 194, 203, 212, 221, 230, 239, 248, 266, 275, 284, 293, 302, 311, 320, 329, 338, 347, 356, 365, 374, 383, 392,
 401, 410, 419, 428, 437, 446, 455, and 464; and
 (f) a variable light chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ
 ID NOs: 114, 258, 6, 15, 24, 33, 42, 51, 60, 69, 78, 87, 96, 105, 123, 132, 141, 150, 159, 168, 177, 186, 195, 204, 213,
 222, 231, 240, 249, 267, 276, 285, 294, 303, 312, 321, 330, 339, 348, 357, 366, 375, 384, 393, 402, 411, 420, 429, 438,
 447, 456, and 465.

[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 ~~at least one of:~~

(a) a variable heavy chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 109~~selected from the group consisting of SEQ ID NOs 109, 253, 1, 10, 19, 28, 37, 46, 55, 64, 73, 82, 91, 100, 118, 127, 136, 145, 154, 163, 172, 181, 190, 199, 208, 217, 226, 235, 244, 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 according to SEQ ID NO: 110~~selected from the group consisting of SEQ NOs: 110, 254, 2, 11, 20, 38, 47, 56, 65, 74, 83, 92, 101, 119, 128, 137, 146, 155, 164, 173, 182, 191, 200, 209, 218, 227, 236, 245, 263, 272, 281, 290, 299, 308, 317, 326, 335, 344, 353, 362, 371, 380, 389, 398, 407, 416, 425, 434, 443, 452, 461, and 695;~~

~~(c)~~ a variable heavy chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 111~~selected from the group consisting of SEQ ID NOs 111, 255, 3, 12, 21, 30, 39, 48, 57, 66, 75, 84, 93, 102, 120, 129, 138, 147, 156, 165, 174, 183, 192, 201, 210, 219, 228, 237, 246, 264, 273, 282, 291, 300, 309, 318, 327, 336, 345, 354, 363, 372, 381, 390, 399, 408, 417, 426, 435, 444, 453, and 462;~~

~~(d)~~ a variable light chain CDR1 comprising an amino acid sequence according to SEQ ID NO: 112~~selected from the group consisting of SEQ ID NOs: 112, 256, 4, 13, 22, 31, 40, 49, 58, 67, 85, 94, 103, 121, 130, 139, 148, 157, 166, 175, 184, 193, 202, 211, 220, 229, 238, 247, 265, 274, 283, 292, 301, 310, 319, 328, 337, 346, 355, 364, 373, 382, 391, 400, 409, 418, 427, 436, 445, 454, 463, and 696;~~

~~(e)~~ a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 113~~selected from the group consisting of SEQ ID NOs: 113, 257, 5, 14, 23, 32, 41, 50, 59, 68, 77, 86, 95, 104, 122, 131, 140, 149, 158, 167, 176, 185, 194, 203, 212, 221, 230, 239, 248, 266, 275, 284, 293, 302, 311, 320, 329, 338, 347, 356, 365, 374, 383, 392, 401, 410, 419, 428, 437, 446, 455, and 464; and~~

~~(f)~~ a variable light chain CDR3 comprising an amino acid sequence according to SEQ ID NO: 114; selected from the group consisting of SEQ ID NOs: 114, 258, 6, 15, 24, 33, 42, 51, 60, 69, 78, 87, 96, 105, 123, 132, 141, 150, 159, 168, 177, 186, 195, 204, 213, 222, 231, 240, 249, 267, 276, 285, 294, 303, 312, 321, 330, 339, 348, 357, 366, 375, 384, 393, 402, 411, 420, 429, 438, 447, 456, and 465.

(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

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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: 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;

(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 CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 109, 253, 1, 10, 19, 28, 37, 46, 55, 64, 73, 82, 91, 100, 118, 127, 136, 145, 154, 163, 172, 181, 190, 199, 208, 217, 226, 235, 244, 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: 110, 254, 2, 11, 20, 38, 47, 56, 65, 74, 83, 92, 101, 119, 128, 137, 146, 155, 164, 173, 182, 191, 200, 209, 218, 227, 236, 245, 263, 272, 281, 290, 299, 308, 317, 326, 335, 344, 353, 362, 371, 380, 389, 398, 407, 416, 425, 434, 443, 452, 461, and 695; and

(c) a variable heavy chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 111, 255, 3, 12, 21, 30, 39, 48, 57, 66, 75, 84, 93, 102, 120, 129, 138, 147, 156, 165, 174, 183, 192, 201, 210, 219, 228, 237, 246, 264, 273, 282, 291, 300, 309, 318, 327, 336, 345, 354, 363, 372, 381, 390, 399, 408, 417, 426, 435, 444, 453, and 462.

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) a variable light chain CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 112, 256, 4, 13, 22, 31, 40, 49, 58, 67, 85, 94, 103, 121, 130, 139, 148, 157, 166, 175, 184, 193, 202, 211, 220, 229, 238, 247, 265, 274, 283, 292, 301, 310, 319, 328, 337, 346, 355, 364, 373, 382, 391, 400, 409, 418, 427, 436, 445, 454, 463, and 696;

(b) a variable light chain CDR2 comprising an amino acid sequence selected from the group consisting of SEQ NOs: 113, 257, 5, 14, 23, 32, 41, 50, 59, 68, 77, 86, 95, 104, 122, 131, 140, 149, 158, 167, 176, 185, 194, 203, 212, 221, 230, 239, 248, 266, 275, 284, 293, 302, 311, 320, 329, 338, 347, 356, 365, 374, 383, 392, 401, 410, 419, 428, 437, 446, 455, and 464; and

(c) a variable light chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 114, 258, 6, 15, 24, 33, 42, 51, 60, 69, 78, 87, 96, 105, 123, 132, 141, 150, 159, 168, 177, 186, 195, 204, 213, 222,

~~231, 240, 249, 267, 276, 285, 294, 303, 312, 321, 330, 339, 348, 357, 366, 375, 384, 393, 402, 411, 420, 429, 438, 447, 456, and 465.~~

4.2. 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 ~~at least one of:~~

(a) a variable heavy chain comprising an amino acid sequence according to SEQ ID NO: 115~~selected from the group consisting of SEQ ID NOs: 115, 259, 7, 16, 25, 34, 43, 52, 61, 70, 79, 88, 97, 106, 124, 133, 142, 151, 160, 169, 178, 187, 196, 205, 214, 223, 232, 241, 250, 268, 277, 286, 295, 304, 313, 322, 331, 340, 349, 358, 367, 376, 385, 394, 403, 412, 421, 430, 439, 448, 457, 466; and~~

~~(b)~~ a variable light chain comprising an amino acid sequence according to SEQ ID NO: 116~~selected from the group consisting of SEQ NOs: 116, 260, 8, 17, 26, 35, 44, 53, 62, 71, 80, 89, 98, 107, 125, 134, 143, 152, 161, 170, 179, 188, 197, 206, 215, 224, 233, 242, 251, 269, 278, 287, 296, 305, 314, 323, 332, 341, 350, 359, 368, 377, 386, 395, 404, 413, 422, 431, 440, 449, 458, and 467,~~

~~(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 ~~is~~are linked by at least one linker.

~~5. — 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 selected from the group consisting of SEQ ID NOs: 115, 259, 7, 16, 25, 34, 43, 52, 61, 70, 79, 88, 97, 106, 124, 133, 142, 151, 160, 169, 178, 187, 196, 205, 214, 223, 232, 241, 250, 268, 277, 286, 295, 304, 313, 322, 331, 340, 349, 358, 367, 376, 385, 394, 403, 412, 421, 430, 439, 448, 457, and 466; and~~

~~(b) a variable light chain comprising an amino acid sequence selected from the group consisting of SEQ NOs: 116, 260, 8, 17, 26, 35, 44, 53, 62, 71, 80, 89, 98, 107, 125, 134, 143, 152, 161, 170, 179, 188, 197, 206, 215, 224, 233, 242, 251, 269, 278, 287, 296, 305, 314, 323, 332, 341, 350, 359, 368, 377, 386, 395, 404, 413, 422, 431, 440, 449, 458, and 467,~~

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

~~6.3. —~~ 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~~those scFvs presented in Table 1d.~~

~~7.4. —~~ 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: 494, 644, 582, 510, 598, 660, 486, 636, 574, 487, 637, 575, 490, 640, 578, 485, 635, 573, 496, 646, 584, 501, 651, 589, 506, 656, 512, and 662~~482 to 533 and SEQ ID NOs: 632–683.~~

8-5. The chimeric antigen receptor of any one of claims 1 to 74, wherein the intracellular domain comprises at least one costimulatory domain.

9-6. The chimeric antigen receptor of claim 85, 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 (CD11a/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, CD11d, ITGAE, CD103, ITGAL, CD11a, LFA-1, ITGAM, CD11b, ITGAX, CD11c, 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.

10-7. The chimeric antigen receptor of claim 96, wherein the costimulatory domain comprises a signaling region of 4-1BB/CD137.

11-8. The chimeric antigen receptor of claim 107, wherein the 4-1BB/CD137 costimulatory domain comprises SEQ ID NO: 480 ~~or a fragment thereof~~.

12-9. The chimeric antigen receptor of any one of claims 1 to 118, wherein the intracellular domain comprises at least one activating domain.

13-10. The chimeric antigen receptor of claim 129, wherein the activating domain comprises CD3.

14-11. The chimeric antigen receptor of claim 1310, wherein the CD3 comprises CD3 zeta.

15-12. The chimeric antigen receptor of claim 1411, wherein the CD3 zeta comprises SEQ ID NO: 481 ~~or a fragment thereof~~.

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.

16-22. The chimeric antigen receptor of any one of claims 1-~~15~~21, wherein the chimeric antigen receptor is encoded by the polynucleotide sequence of any one of SEQ ID NOs: 570-621 and 631.

17-23. The chimeric antigen receptor of any one of claims 1-~~16~~22, further comprising a safety switch.

18-24. The chimeric antigen receptor of claim ~~17~~23, wherein the safety switch comprises a CD20 mimotope or a QBEND-10 epitope.

19-25. The chimeric antigen receptor of claim ~~18~~24, wherein the safety switch comprises one or more CD20 mimotopes or one or more QBEND-10 epitopes, or combinations thereof.

~~20-26.~~ The chimeric antigen receptor of any one of claims ~~17-19~~~~23-25~~, wherein the chimeric antigen receptor comprises one or more safety switch in the format of

a) QR3 comprising CD8 α 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 – CD3 ζ signaling domain,

b) SR2 comprising CD8 α signal sequence – anti-DLL3 ScFv – linker – CD20 mimotope – linker – CD20 mimotope – linker - hinge and transmembrane regions of human CD8 α molecule – 41BB signaling domain – CD3 ζ signaling domain,

c) RSR comprising CD8 α signal sequence — linker – CD20 mimotope – linker– anti-DLL3 ScFv – linker – CD20 mimotope – linker–hinge and transmembrane regions of human CD8 α molecule – 41BB signaling domain – CD3 ζ signaling domain, or

d) R2S comprising CD8 α 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 – CD3 ζ signaling domain~~QR3, SR2, RSR, or R2S.~~

~~21-27.~~ The chimeric antigen receptor of any one of claims ~~17-20~~~~23-26~~, wherein the chimeric antigen receptor comprises the 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: ~~622-625, 684-687, 626-628, 688-690, 474-476, 565, and 692-694~~~~686, 690, 622-628, 474-476, 565, and 684-685, 687-689, and 691-694.~~

~~22-28.~~ An isolated polynucleotide encoding any one of the chimeric antigen receptors of claims 1 to ~~24~~~~27~~.

~~23-29.~~ A vector comprising the polynucleotide of claim ~~22~~~~28~~.

~~24-30.~~ The vector of claim ~~23~~~~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.

~~25-31.~~ An engineered immune cell expressing any one of the chimeric antigen receptors of claims 1 to ~~24~~~~27~~.

~~26-32.~~ An engineered immune cell expressing the polynucleotide of claim ~~22-28~~ or vector of claim ~~23-29~~ or ~~24~~~~30~~.

~~27.33.~~ The engineered immune cell of claim ~~25.31~~ or ~~26.32~~, wherein the immune cell is a T cell, tumor infiltrating lymphocyte (TIL), NK cell, TCR-expressing cell, dendritic cell, or NK-T cell.

~~28.34.~~ The engineered immune cell of claim ~~27.33~~, wherein the cell is an autologous T cell.

~~29.35.~~ The engineered immune cell of claim ~~27.33~~, wherein the cell is an allogeneic T cell.

5 ~~30.36.~~ A pharmaceutical composition comprising the engineered immune cell of any one of claims ~~25.31-29.35~~.

~~31.37.~~ Use of the engineered immune cell of any one of claims ~~25.31-29.35~~, 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.

10 ~~32.38.~~ The use of claim ~~31.37~~, wherein the disease or disorder is cancer.

~~33.39.~~ The use of claim ~~31.37~~ or ~~32.38~~, wherein the disease or disorder is small cell lung cancer.

~~34.40.~~ An article of manufacture comprising the engineered immune cell of any one of claims ~~26.32-29.25~~, or the pharmaceutical composition of claim ~~30.36~~.

~~35.41.~~ An anti-DLL3 binding agent comprising

15 (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
20 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,
25 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,](#)
5 [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,](#)
10 [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](#)
15 [696,](#)
20 [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](#)
25 [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,](#)
30 [a variable light chain CDR2 comprising an amino acid sequence according to SEQ ID NO: 131, and](#)
35 [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: 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;

(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.

~~(a) a variable heavy chain CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs 109, 253, 1, 10, 19, 28, 37, 46, 55, 64, 73, 82, 91, 100, 118, 127, 136, 145, 154, 163, 172, 181, 190, 199, 208, 217, 226, 235, 244, 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: 110, 254, 2, 11, 20, 38, 47, 56, 65, 74, 83, 92, 101, 119, 128, 137, 146, 155, 164, 173, 182, 191, 200, 209, 218, 227, 236, 245, 263, 272, 281, 290, 299, 308, 317, 326, 335, 344, 353, 362, 371, 380, 389, 398, 407, 416, 425, 434, 443, 452, 461, and 695;~~

~~(c) a variable heavy chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs 111, 255, 3, 12, 21, 30, 39, 48, 57, 66, 75, 84, 93, 102, 120, 129, 138, 147, 156, 165, 174, 183, 192, 201, 210, 219, 228, 237, 246, 264, 273, 282;~~

~~291, 300, 309, 318, 327, 336, 345, 354, 363, 372, 381, 390, 399, 408, 417, 426, 435, 444, 453, and 462;~~

~~(d) a variable light chain CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 112, 256, 4, 13, 22, 31, 40, 49, 58, 67, 85, 94, 103, 121, 130, 139, 148, 157, 166, 175, 184, 193, 202, 211, 220, 229, 238, 247, 265, 274, 283, 292, 301, 310, 319, 328, 337, 346, 355, 364, 373, 382, 391, 400, 409, 418, 427, 436, 445, 454, 463, and 696;~~

~~(e) a variable light chain CDR2 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 113, 257, 5, 14, 23, 32, 41, 50, 59, 68, 77, 86, 95, 104, 122, 131, 140, 149, 158, 167, 176, 185, 194, 203, 212, 221, 230, 239, 248, 266, 275, 284, 293, 302, 311, 320, 329, 338, 347, 356, 365, 374, 383, 392, 401, 410, 419, 428, 437, 446, 455, and 464; and~~

~~(f) a variable light chain CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 114, 258, 6, 15, 24, 33, 42, 51, 60, 69, 78, 87, 96, 105, 123, 132, 141, 150, 159, 168, 177, 186, 195, 204, 213, 222, 231, 240, 249, 267, 276, 285, 294, 303, 312, 321, 330, 339, 348, 357, 366, 375, 384, 393, 402, 411, 420, 429, 438, 447, 456, and 465.~~

36.42. The anti-DLL3 binding agent of claim 3541, 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.

37.43. The anti-DLL3 binding agent of claim 3642, wherein the binding agent is a monoclonal antibody comprising an IgG constant region.

38.44. The anti-DLL3 binding agent of any one of claims 3541-3743, comprising 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 selected from the group consisting of SEQ ID NOs: 115, 259, 43, 52, 79, 34, 133, 178, 223, and 277~~provided in Table 1b.~~

39.45. The anti-DLL3 binding agent of any one of claims 3541-3844, comprising 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 selected from the group consisting of SEQ ID NOs: 116, 260, 44, 53, 80, 35, 134, 179, 224, and 278~~provided in Table 1e.~~

40.46. The anti-DLL3 binding agent of any one of claims 3541-3945, wherein the binding agent comprises a sequence that is at least about 80%, 85%, 90%, 95%, 96%, 98%, 99% or 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~~presented in Table 1d.~~

~~41.47.~~ 41.47. The anti-DLL3 binding agent of any one of claims ~~3541-4046~~, wherein the binding agent is a fusion protein comprising a scFv fragment fused to an Fc constant region.

5 ~~42.48.~~ 42.48. A pharmaceutical composition comprising the anti-DLL3 binding agent of any one of claims ~~3541-4147~~ and a pharmaceutically acceptable excipient.

~~43.49.~~ 43.49. Use of an anti-DLL3 binding agent of any one of claims ~~3541-4147~~, or the pharmaceutical composition of claim ~~42-48~~ in the manufacture of a medicament for treating a disease or disorder in a subject in need thereof.

10 ~~44.50.~~ 44.50. The use of claim ~~4349~~, wherein the disease or disorder is cancer.

~~45.51.~~ 45.51. The use of claim ~~43-49~~ or ~~4450~~, wherein the disease or disorder is small cell lung cancer.