

WHAT IS CLAIMED IS:

1. A pharmaceutical composition comprising an effective amount of an antibody or antigen-binding antibody fragment comprising:

an antigen-binding domain that is capable of specifically binding DLL3 or an epitope of DLL3 presented on the surface of a target mammalian cell,

wherein

the antigen-binding domain comprises one of (a) through (g):

(a) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 1, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 1 selected from the group consisting of: 27, 29, 31, 32, 34, 35, 50, 53, 54, 55, 58, 97, 98, 101, 103, 105, and 106, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 2 selected from the group consisting of: 25, 26, 29, 32, 33, 34, 51, 54, 89, 90, 93, 94, 95, and 96;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 1, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 1 selected from the group consisting of: 27, 29, 31, 32, 34, 35, 50, 53, 54, 55, 58, 97, 98, 101, 103, 105, and 106, and a light chain variable domain that is SEQ ID NO: 2; or

a heavy chain variable domain that is SEQ ID NO: 1 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 2 selected from the group consisting of: 25, 26, 29, 32, 33, 34, 51, 54, 89, 90, 93, 94, 95, and 96;

(b) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 119, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 119 selected from the group consisting of: 32, 50, 52, 53, 57, 58, 59, 60, 62, 64, 65, 97, 98, 99, 100, 102, 104, and 105, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 120, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 120 selected from the group consisting of: 29, 32, 34, 91, 92, 93, 94 and 96;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 119, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 119 selected from the group consisting of: 32, 50, 52, 53, 57, 58, 59, 60, 62, 64, 65, 97, 98, 99, 100, 102, 104, and 105, and a light chain variable domain that is SEQ ID NO: 120; or

a heavy chain variable domain that is SEQ ID NO: 119 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 120, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 120 selected from the group consisting of: 29, 32, 34, 91, 92, 93, 94 and 96;

(c) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 236, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 236 selected from the group consisting of: 27, 29, 31, 33, 34, 35, 36, 37, 54, 55, 56, 58, 60, 98, 100, 102, 106, 108, and 110, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 237, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 237 selected from the group consisting of 25, 29, 32, 33, 49, 50, 90, 91, 93, and 95;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 236, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 236 selected from the group consisting of: 27, 29, 31, 33, 34, 35, 36, 37, 54, 55, 56, 58, 60, 98, 100, 102, 106, 108, and 110, and a light chain variable domain that is SEQ ID NO: 237; or

a heavy chain variable domain that is SEQ ID NO: 236 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 237, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 237 selected from the group consisting of 25, 29, 32, 33, 49, 50, 90, 91, 93, and 95;

(d) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 335, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 335 selected from the group consisting of: 27, 32, 33, 34, 50, 98, 101, 102, 103, 104, and 105, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 336, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 336 selected from the group consisting of: 27, 29, 32, 34, 52, 53, 89, 90, 91, 92, 93, 94, and 96;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 335, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 335 selected from the group consisting of: 27, 32, 33, 34, 50, 98, 101, 102, 103, 104, and 105, and a light chain variable domain that is SEQ ID NO: 336; or

a heavy chain variable domain that is SEQ ID NO: 335 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 336, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 336 selected from the group consisting of: 27, 29, 32, 34, 52, 53, 89, 90, 91, 92, 93, 94, and 96;

(e) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 401, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 401 selected from the group consisting of: 27, 101, 103, 104, 108, and 109, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 402, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 402 selected from the group consisting of: 30 and 31;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 401, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 401

selected from the group consisting of: 27, 101, 103, 104, 108, and 109, and a light chain variable domain that is SEQ ID NO: 402; or

a heavy chain variable domain that is SEQ ID NO: 401 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 402, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 402 selected from the group consisting of: 30 and 31;

(f) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 470, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 470 selected from the group consisting of 24, 27, 29, 32, 34, 35, 50, 51, 53, 54, 56, 58, 59, 60, 63, 98, 101, 103, 105, 106, and 107, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 471, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 471 selected from the group consisting of: 29, 32, 33, 34, 50, 51, 53, 55, 89, 92, 94, 96 and 97;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 470, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 470 selected from the group consisting of 24, 27, 29, 32, 34, 35, 50, 51, 53, 54, 56, 58, 59, 60, 63, 98, 101, 103, 105, 106, and 107, and a light chain variable domain that is SEQ ID NO: 471; or

a heavy chain variable domain that is SEQ ID NO: 470 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 471, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 471 selected from the group consisting of: 29, 32, 33, 34, 50, 51, 53, 55, 89, 92, 94, 96 and 97; and

(g) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 537, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 537 selected from the group consisting of: 26, 29, 31, 32, 53, 54, 57, 58, 59, 65, 67, 68, 103, 104, and 106, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 538, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 538 selected from the group consisting of: 28, 34, 53, 93, 94, and 98;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 537, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 537 selected from the group consisting of: 26, 29, 31, 32, 53, 54, 57, 58, 59, 65, 67, 68, 103, 104, and 106, and a light chain variable domain that is SEQ ID NO: 538; or

a heavy chain variable domain that is SEQ ID NO: 537 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 538, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 538 selected from the group consisting of: 28, 34, 53, 93, 94, and 98.

2. The pharmaceutical composition of claim 1, wherein the antibody or antigen-binding antibody fragment is degraded in the target mammalian cell following internalization of the antibody or antigen-binding antibody fragment by the target mammalian cell.

3. The pharmaceutical composition of claim 1 or 2, wherein the antibody or antigen-binding antibody fragment further comprises a conjugated toxin, radioisotope, drug, or small molecule.

4. The pharmaceutical composition of claim 3,
wherein the composition provides for one or more of:
an increase in toxin liberation in the target mammalian cell as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment;
an increase in target mammalian cell killing as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment; and
an increase in endolysosomal delivery in the target mammalian cell as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment.

5. The pharmaceutical composition of claim 1 or 4, wherein the antigen-binding domain comprises one of (a) through (g):

(a) a light chain variable domain of SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 59, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 69, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, SEQ ID NO: 79, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, or SEQ ID NO: 118, and a heavy chain variable domain of SEQ ID NO: 17, SEQ ID NO: 19, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 34, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 47, SEQ ID NO: 49, SEQ ID NO: 51, SEQ ID NO: 52, SEQ ID NO: 81, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 84, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, or SEQ ID NO: 98;

a light chain variable domain of SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 59, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 69, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, SEQ ID NO: 79, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109,

SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, or SEQ ID NO: 118, and a heavy chain variable domain of SEQ ID NO: 1; or

a light chain variable domain of SEQ ID NO: 2 and a heavy chain variable domain of SEQ ID NO: 17, SEQ ID NO: 19, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 34, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 47, SEQ ID NO: 49, SEQ ID NO: 51, SEQ ID NO: 52, SEQ ID NO: 81, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 84, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, or SEQ ID NO: 98;

(b) a light chain variable domain of SEQ ID NO: 163, SEQ ID NO: 166, SEQ ID NO: 168, SEQ ID NO: 178, SEQ ID NO: 179, SEQ ID NO: 180, SEQ ID NO: 181, SEQ ID NO: 183, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, or SEQ ID NO: 235, and a heavy chain variable domain of SEQ ID NO: 127, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 138, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 143, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 153, SEQ ID NO: 155, SEQ ID NO: 156; SEQ ID NO: 185, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 220, SEQ ID NO: 221, or SEQ ID NO: 223;

a light chain variable domain of SEQ ID NO: 163, SEQ ID NO: 166, SEQ ID NO: 168, SEQ ID NO: 178, SEQ ID NO: 179, SEQ ID NO: 180, SEQ ID NO: 181, SEQ ID NO: 183, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, or SEQ ID NO: 235, and a heavy chain variable domain of SEQ ID NO: 119; or

a light chain variable domain of SEQ ID NO: 120 and a heavy chain variable domain of SEQ ID NO: 127, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 138, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 143, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 153, SEQ ID NO: 155, SEQ ID NO: 156; SEQ ID NO: 185, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ

ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 220, SEQ ID NO: 221, or SEQ ID NO: 223;

(c) a light chain variable domain of SEQ ID NO: 283, SEQ ID NO: 287, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 304, SEQ ID NO: 306, or SEQ ID NO: 334, and a heavy chain variable domain of SEQ ID NO: 239, SEQ ID NO: 241, SEQ ID NO: 243, SEQ ID NO: 245, SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 256, SEQ ID NO: 258, SEQ ID NO: 266, SEQ ID NO: 268, SEQ ID NO: 270, SEQ ID NO: 274, SEQ ID NO: 276, SEQ ID NO: 278, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, SEQ ID NO: 323, SEQ ID NO: 324, SEQ ID NO: 325, SEQ ID NO: 326, SEQ ID NO: 327, SEQ ID NO: 328, SEQ ID NO: 330, SEQ ID NO: 331, or SEQ ID NO: 332;

a light chain variable domain of SEQ ID NO: 283, SEQ ID NO: 287, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 304, SEQ ID NO: 306, or SEQ ID NO: 334, and a heavy chain variable domain of SEQ ID NO: 236;

or

a light chain variable domain of SEQ ID NO: 237 and a heavy chain variable domain of SEQ ID NO: 239, SEQ ID NO: 241, SEQ ID NO: 243, SEQ ID NO: 245, SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 256, SEQ ID NO: 258, SEQ ID NO: 266, SEQ ID NO: 268, SEQ ID NO: 270, SEQ ID NO: 274, SEQ ID NO: 276, SEQ ID NO: 278, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, SEQ ID NO: 323, SEQ ID NO: 324, SEQ ID NO: 325, SEQ ID NO: 326, SEQ ID NO: 327, SEQ ID NO: 328, SEQ ID NO: 330, SEQ ID NO: 331, or SEQ ID NO: 332;

(d) a light chain variable domain of SEQ ID NO: 377, SEQ ID NO: 379, SEQ ID NO: 382, SEQ ID NO: 384, SEQ ID NO: 387, SEQ ID NO: 388, SEQ ID NO: 392, SEQ ID NO: 393, SEQ ID NO: 394, SEQ ID NO: 395, SEQ ID NO: 396, SEQ ID NO: 397, or SEQ ID NO: 399, and a heavy chain variable domain of SEQ ID NO: 341, SEQ ID NO: 346, SEQ ID NO: 347, SEQ ID NO: 348, SEQ ID NO: 349, SEQ ID NO: 350, SEQ ID NO: 368, SEQ ID NO: 371, SEQ ID NO: 372, SEQ ID NO: 373, SEQ ID NO: 374, or SEQ ID NO: 375;

a light chain variable domain of SEQ ID NO: 377, SEQ ID NO: 379, SEQ ID NO: 382, SEQ ID NO: 384, SEQ ID NO: 387, SEQ ID NO: 388, SEQ ID NO: 392, SEQ ID NO: 393, SEQ ID NO:

394, SEQ ID NO: 395, SEQ ID NO: 396, SEQ ID NO: 397, or SEQ ID NO: 399, and a heavy chain variable domain of SEQ ID NO: 335; or

a light chain variable domain of SEQ ID NO: 336 and a heavy chain variable domain of SEQ ID NO: 341, SEQ ID NO: 346, SEQ ID NO: 347, SEQ ID NO: 348, SEQ ID NO: 349, SEQ ID NO: 350, SEQ ID NO: 368, SEQ ID NO: 371, SEQ ID NO: 372, SEQ ID NO: 373, SEQ ID NO: 374, or SEQ ID NO: 375;

(e) a light chain variable domain of SEQ ID NO: 450, or SEQ ID NO: 451, and a heavy chain variable domain of SEQ ID NO: 404, SEQ ID NO: 434, SEQ ID NO: 436, SEQ ID NO: 437, SEQ ID NO: 441, or SEQ ID NO: 442;

a light chain variable domain of SEQ ID NO: 450 or SEQ ID NO: 451, and a heavy chain variable domain of SEQ ID NO: 401; or

a light chain variable domain of SEQ ID NO: 402 and a heavy chain variable domain of SEQ ID NO: 404, SEQ ID NO: 434, SEQ ID NO: 436, SEQ ID NO: 437, SEQ ID NO: 441, or SEQ ID NO: 442;

(f) a light chain variable domain of SEQ ID NO: 515, SEQ ID NO: 518, SEQ ID NO: 519, SEQ ID NO: 520, SEQ ID NO: 521, SEQ ID NO: 522, SEQ ID NO: 524, SEQ ID NO: 526, SEQ ID NO: 528, SEQ ID NO: 531, SEQ ID NO: 533, SEQ ID NO: 535, or SEQ ID NO: 536, and a heavy chain variable domain of SEQ ID NO: 473, SEQ ID NO: 476, SEQ ID NO: 478, SEQ ID NO: 481, SEQ ID NO: 483, SEQ ID NO: 484, SEQ ID NO: 485, SEQ ID NO: 486, SEQ ID NO: 488, SEQ ID NO: 489, SEQ ID NO: 491, SEQ ID NO: 493, SEQ ID NO: 494, SEQ ID NO: 495, SEQ ID NO: 498, SEQ ID NO: 503, SEQ ID NO: 506, SEQ ID NO: 508, SEQ ID NO: 510, SEQ ID NO: 511, or SEQ ID NO: 512;

a light chain variable domain of SEQ ID NO: 515, SEQ ID NO: 518, SEQ ID NO: 519, SEQ ID NO: 520, SEQ ID NO: 521, SEQ ID NO: 522, SEQ ID NO: 524, SEQ ID NO: 526, SEQ ID NO: 528, SEQ ID NO: 531, SEQ ID NO: 533, SEQ ID NO: 535, or SEQ ID NO: 536, and a heavy chain variable domain of SEQ ID NO: 470; or

a light chain variable domain of SEQ ID NO: 471 and a heavy chain variable domain of SEQ ID NO: 473, SEQ ID NO: 476, SEQ ID NO: 478, SEQ ID NO: 481, SEQ ID NO: 483, SEQ ID NO: 484, SEQ ID NO: 485, SEQ ID NO: 486, SEQ ID NO: 488, SEQ ID NO: 489, SEQ ID NO: 491, SEQ ID NO: 493, SEQ ID NO: 494, SEQ ID NO: 495, SEQ ID NO: 498, SEQ ID NO: 503, SEQ ID NO: 506, SEQ ID NO: 508, SEQ ID NO: 510, SEQ ID NO: 511, or SEQ ID NO: 512; and

(g) a light chain variable domain of SEQ ID NO: 581, SEQ ID NO: 587, SEQ ID NO: 591, SEQ ID NO: 599, SEQ ID NO: 600, or SEQ ID NO: 604, and a heavy chain variable domain of SEQ ID NO: 539, SEQ ID NO: 542, SEQ ID NO: 544, SEQ ID NO: 545, SEQ ID NO: 552, SEQ ID NO: 553, SEQ ID NO: 556, SEQ ID NO: 557, SEQ ID NO: 558, SEQ ID NO: 564, SEQ ID NO: 566, SEQ ID NO: 567, SEQ ID NO: 572, SEQ ID NO: 573, or SEQ ID NO: 575;

a light chain variable domain of SEQ ID NO: 581, SEQ ID NO: 587, SEQ ID NO: 591, SEQ ID NO: 599, SEQ ID NO: 600, or SEQ ID NO: 604, and a heavy chain variable domain of SEQ ID NO: 537; or

a light chain variable domain of SEQ ID NO: 538, and a heavy chain variable domain of SEQ ID NO: 539, SEQ ID NO: 542, SEQ ID NO: 544, SEQ ID NO: 545, SEQ ID NO: 552, SEQ ID NO: 553, SEQ ID NO: 556, SEQ ID NO: 557, SEQ ID NO: 558, SEQ ID NO: 564, SEQ ID NO: 566, SEQ ID NO: 567, SEQ ID NO: 572, SEQ ID NO: 573, or SEQ ID NO: 575.

6. The pharmaceutical composition of any one of claims 1-5, wherein the composition provides for one or both of:

an increase in toxin liberation in the target mammalian cell as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment; and

an increase in target mammalian cell killing as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment.

7. The pharmaceutical composition of any one of claims 1-6, wherein the composition provides for an increase in endolysosomal delivery in the target mammalian cell as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment.

8. The pharmaceutical composition of any one of claims 1-7, wherein the composition: results in a less of a reduction in the level of DLL3 presented on the surface of the target mammalian cell as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment; or does not result in a detectable reduction in the level of DLL3 presented on the surface of the target mammalian cell.

9. The pharmaceutical composition of any one of claims 1-8, wherein the target mammalian cell is a cancer cell.

10. The pharmaceutical composition of any one of claims 1-9, wherein the antibody or antigen-binding antibody fragment is cytotoxic or cytostatic to the target mammalian cell.

11. The pharmaceutical composition of any one of claims 1-10, wherein the antibody or antigen-binding antibody fragment is: cross-reactive with a non-human primate DLL3 and human DLL3; or cross-reactive with a non-human primate DLL3, a human DLL3, and one or both of rat DLL3 and a mouse DLL3.

12. An antibody or antigen-binding antibody fragment comprising:
an antigen-binding domain that is capable of specifically binding DLL3 or an epitope of
DLL3 presented on the surface of a target mammalian cell,
wherein

the antigen-binding domain comprises one of (a) through (g):

(a) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 1, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 1 selected from the group consisting of: 27, 29, 31, 32, 34, 35, 50, 53, 54, 55, 58, 97, 98, 101, 103, 105, and 106, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 2 selected from the group consisting of: 25, 26, 29, 32, 33, 34, 51, 54, 89, 90, 93, 94, 95, and 96;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 1, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 1 selected from the group consisting of: 27, 29, 31, 32, 34, 35, 50, 53, 54, 55, 58, 97, 98, 101, 103, 105, and 106, and a light chain variable domain that is SEQ ID NO: 2; or

a heavy chain variable domain that is SEQ ID NO: 1 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 2 selected from the group consisting of: 25, 26, 29, 32, 33, 34, 51, 54, 89, 90, 93, 94, 95, and 96;

(b) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 119, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 119 selected from the group consisting of: 32, 50, 52, 53, 57, 58, 59, 60, 62, 64, 65, 97, 98, 99, 100, 102, 104, and 105, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 120, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 120 selected from the group consisting of: 29, 32, 34, 91, 92, 93, 94 and 96;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 119, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 119 selected from the group consisting of: 32, 50, 52, 53, 57, 58, 59, 60, 62, 64, 65, 97, 98, 99, 100, 102, 104, and 105, and a light chain variable domain that is SEQ ID NO: 120; or

a heavy chain variable domain that is SEQ ID NO: 119 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 120, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 120 selected from the group consisting of: 29, 32, 34, 91, 92, 93, 94 and 96;

(c) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 236, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 236 selected from the group consisting of: 27, 29, 31, 33, 34, 35, 36, 37, 54, 55, 56, 58, 60, 98, 100, 102, 106, 108, and 110, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 237,

wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 237 selected from the group consisting of 25, 29, 32, 33, 49, 50, 90, 91, 93, and 95;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 236, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 236 selected from the group consisting of: 27, 29, 31, 33, 34, 35, 36, 37, 54, 55, 56, 58, 60, 98, 100, 102, 106, 108, and 110, and a light chain variable domain that is SEQ ID NO: 237; or

a heavy chain variable domain that is SEQ ID NO: 236 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 237, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 237 selected from the group consisting of 25, 29, 32, 33, 49, 50, 90, 91, 93, and 95;

(d) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 335, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 335 selected from the group consisting of: 27, 32, 33, 34, 50, 98, 101, 102, 103, 104, and 105, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 336, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 336 selected from the group consisting of: 27, 29, 32, 34, 52, 53, 89, 90, 91, 92, 93, 94, and 96;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 335, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 335 selected from the group consisting of: 27, 32, 33, 34, 50, 98, 101, 102, 103, 104, and 105, and a light chain variable domain that is SEQ ID NO: 336; or

a heavy chain variable domain that is SEQ ID NO: 335 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 336, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 336 selected from the group consisting of: 27, 29, 32, 34, 52, 53, 89, 90, 91, 92, 93, 94, and 96;

(e) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 401, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 401 selected from the group consisting of: 27, 101, 103, 104, 108, and 109, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 402, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 402 selected from the group consisting of: 30 and 31;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 401, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 401 selected from the group consisting of: 27, 101, 103, 104, 108, and 109, and a light chain variable domain that is SEQ ID NO: 402; or

a heavy chain variable domain that is SEQ ID NO: 401 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 402, wherein the light chain variable domain includes a

histidine at one or more positions in SEQ ID NO: 402 selected from the group consisting of: 30 and 31;

(f) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 470, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 470 selected from the group consisting of 24, 27, 29, 32, 34, 35, 50, 51, 53, 54, 56, 58, 59, 60, 63, 98, 101, 103, 105, 106, and 107, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 471, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 471 selected from the group consisting of: 29, 32, 33, 34, 50, 51, 53, 55, 89, 92, 94, 96 and 97;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 470, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 470 selected from the group consisting of 24, 27, 29, 32, 34, 35, 50, 51, 53, 54, 56, 58, 59, 60, 63, 98, 101, 103, 105, 106, and 107, and a light chain variable domain that is SEQ ID NO: 471; or

a heavy chain variable domain that is SEQ ID NO: 470 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 471, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 471 selected from the group consisting of: 29, 32, 33, 34, 50, 51, 53, 55, 89, 92, 94, 96 and 97; and

(g) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 537, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 537 selected from the group consisting of: 26, 29, 31, 32, 53, 54, 57, 58, 59, 65, 67, 68, 103, 104, and 106, and a light chain variable domain that is at least 90% identical to SEQ ID NO: 538, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 538 selected from the group consisting of: 28, 34, 53, 93, 94, and 98;

a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 537, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 537 selected from the group consisting of: 26, 29, 31, 32, 53, 54, 57, 58, 59, 65, 67, 68, 103, 104, and 106, and a light chain variable domain that is SEQ ID NO: 538; or

a heavy chain variable domain that is SEQ ID NO: 537 and a light chain variable domain that is at least 90% identical to SEQ ID NO: 538, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 538 selected from the group consisting of: 28, 34, 53, 93, 94, and 98.

13. The antibody or antigen-binding antibody fragment of claim 12, wherein the antibody or antigen-binding antibody fragment is degraded in the target mammalian cell following internalization of the antibody or antigen-binding antibody fragment by the target mammalian cell.

14. The antibody or antigen-binding antibody fragment of claim 12 or 13, wherein the antibody or antigen-binding antibody fragment further comprises a conjugated toxin, radioisotope, drug, or small molecule.

15. The antibody or antigen-binding antibody fragment of claim 14, wherein a composition comprising the antibody or antigen-binding antibody fragment provides for one or more of:

an increase in toxin liberation in the target mammalian cell as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment;

an increase in target mammalian cell killing as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment; and

an increase in endolysosomal delivery in the target mammalian cell as compared to a composition comprising the same amount of a control antigen-binding antibody fragment.

16. The antibody or antigen-binding antibody fragment of claim 12 or 15, wherein the antigen-binding domain comprises one of (a) through (g),

(a) a light chain variable domain of SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 59, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 69, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, SEQ ID NO: 79, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, or SEQ ID NO: 118, and a heavy chain variable domain of SEQ ID NO: 17, SEQ ID NO: 19, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO:

29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 34, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 47, SEQ ID NO: 49, SEQ ID NO: 51, SEQ ID NO: 52, SEQ ID NO: 81, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 84, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, or SEQ ID NO: 98;

a light chain variable domain of SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 59, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 69, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, SEQ ID NO: 79, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID

NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, or SEQ ID NO: 118, and a heavy chain variable domain of SEQ ID NO: 1; or

a light chain variable domain of SEQ ID NO: 2 and a heavy chain variable domain of SEQ ID NO: 17, SEQ ID NO: 19, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 34, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 47, SEQ ID NO: 49, SEQ ID NO: 51, SEQ ID NO: 52, SEQ ID NO: 81, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 84, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, or SEQ ID NO: 98;

(b) a light chain variable domain of SEQ ID NO: 163, SEQ ID NO: 166, SEQ ID NO: 168, SEQ ID NO: 178, SEQ ID NO: 179, SEQ ID NO: 180, SEQ ID NO: 181, SEQ ID NO: 183, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, or SEQ ID NO: 235, and a heavy chain variable domain of SEQ ID NO: 127, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 138, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 143, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 153, SEQ ID NO: 155, SEQ ID NO: 156; SEQ ID NO: 185, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 220, SEQ ID NO: 221, or SEQ ID NO: 223;

a light chain variable domain of SEQ ID NO: 163, SEQ ID NO: 166, SEQ ID NO: 168, SEQ ID NO: 178, SEQ ID NO: 179, SEQ ID NO: 180, SEQ ID NO: 181, SEQ ID NO: 183, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, or SEQ ID NO: 235, and a heavy chain variable domain of SEQ ID NO: 119; or

a light chain variable domain of SEQ ID NO: 120 and a heavy chain variable domain of SEQ ID NO: 127, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 138, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 143, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 153, SEQ ID NO: 155, SEQ ID NO: 156; SEQ ID NO: 185, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO:

204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 220, SEQ ID NO: 221, or SEQ ID NO: 223;

(c) a light chain variable domain of SEQ ID NO: 283, SEQ ID NO: 287, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 304, SEQ ID NO: 306, or SEQ ID NO: 334, and a heavy chain variable domain of SEQ ID NO: 239, SEQ ID NO: 241, SEQ ID NO: 243, SEQ ID NO: 245, SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 256, SEQ ID NO: 258, SEQ ID NO: 266, SEQ ID NO: 268, SEQ ID NO: 270, SEQ ID NO: 274, SEQ ID NO: 276, SEQ ID NO: 278, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, SEQ ID NO: 323, SEQ ID NO: 324, SEQ ID NO: 325, SEQ ID NO: 326, SEQ ID NO: 327, SEQ ID NO: 328, SEQ ID NO: 330, SEQ ID NO: 331, or SEQ ID NO: 332;

a light chain variable domain of SEQ ID NO: 283, SEQ ID NO: 287, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 304, SEQ ID NO: 306, or SEQ ID NO: 334, and a heavy chain variable domain of SEQ ID NO: 236; or

a light chain variable domain of SEQ ID NO: 237 and a heavy chain variable domain of SEQ ID NO: 239, SEQ ID NO: 241, SEQ ID NO: 243, SEQ ID NO: 245, SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 256, SEQ ID NO: 258, SEQ ID NO: 266, SEQ ID NO: 268, SEQ ID NO: 270, SEQ ID NO: 274, SEQ ID NO: 276, SEQ ID NO: 278, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, SEQ ID NO: 323, SEQ ID NO: 324, SEQ ID NO: 325, SEQ ID NO: 326, SEQ ID NO: 327, SEQ ID NO: 328, SEQ ID NO: 330, SEQ ID NO: 331, or SEQ ID NO: 332;

(d) a light chain variable domain of SEQ ID NO: 377, SEQ ID NO: 379, SEQ ID NO: 382, SEQ ID NO: 384, SEQ ID NO: 387, SEQ ID NO: 388, SEQ ID NO: 392, SEQ ID NO: 393, SEQ ID NO: 394, SEQ ID NO: 395, SEQ ID NO: 396, SEQ ID NO: 397, or SEQ ID NO: 399, and a heavy chain variable domain of SEQ ID NO: 341, SEQ ID NO: 346, SEQ ID NO: 347, SEQ ID NO: 348, SEQ ID NO: 349, SEQ ID NO: 350, SEQ ID NO: 368, SEQ ID NO: 371, SEQ ID NO: 372, SEQ ID NO: 373, SEQ ID NO: 374, or SEQ ID NO: 375;

a light chain variable domain of SEQ ID NO: 377, SEQ ID NO: 379, SEQ ID NO: 382, SEQ ID NO: 384, SEQ ID NO: 387, SEQ ID NO: 388, SEQ ID NO: 392, SEQ ID NO: 393, SEQ ID NO:

394, SEQ ID NO: 395, SEQ ID NO: 396, SEQ ID NO: 397, or SEQ ID NO: 399, and a heavy chain variable domain of SEQ ID NO: 335; or

a light chain variable domain of SEQ ID NO: 336 and a heavy chain variable domain of SEQ ID NO: 341, SEQ ID NO: 346, SEQ ID NO: 347, SEQ ID NO: 348, SEQ ID NO: 349, SEQ ID NO: 350, SEQ ID NO: 368, SEQ ID NO: 371, SEQ ID NO: 372, SEQ ID NO: 373, SEQ ID NO: 374, or SEQ ID NO: 375;

(e) a light chain variable domain of SEQ ID NO: 450, or SEQ ID NO: 451, and a heavy chain variable domain of SEQ ID NO: 404, SEQ ID NO: 434, SEQ ID NO: 436, SEQ ID NO: 437, SEQ ID NO: 441, or SEQ ID NO: 442;

a light chain variable domain of SEQ ID NO: 450 or SEQ ID NO: 451, and a heavy chain variable domain of SEQ ID NO: 401; or

a light chain variable domain of SEQ ID NO: 402 and a heavy chain variable domain of SEQ ID NO: 404, SEQ ID NO: 434, SEQ ID NO: 436, SEQ ID NO: 437, SEQ ID NO: 441, or SEQ ID NO: 442;

(f) a light chain variable domain of SEQ ID NO: 515, SEQ ID NO: 518, SEQ ID NO: 519, SEQ ID NO: 520, SEQ ID NO: 521, SEQ ID NO: 522, SEQ ID NO: 524, SEQ ID NO: 526, SEQ ID NO: 528, SEQ ID NO: 531, SEQ ID NO: 533, SEQ ID NO: 535, or SEQ ID NO: 536, and a heavy chain variable domain of SEQ ID NO: 473, SEQ ID NO: 476, SEQ ID NO: 478, SEQ ID NO: 481, SEQ ID NO: 483, SEQ ID NO: 484, SEQ ID NO: 485, SEQ ID NO: 486, SEQ ID NO: 488, SEQ ID NO: 489, SEQ ID NO: 491, SEQ ID NO: 493, SEQ ID NO: 494, SEQ ID NO: 495, SEQ ID NO: 498, SEQ ID NO: 503, SEQ ID NO: 506, SEQ ID NO: 508, SEQ ID NO: 510, SEQ ID NO: 511, or SEQ ID NO: 512;

a light chain variable domain of SEQ ID NO: 515, SEQ ID NO: 518, SEQ ID NO: 519, SEQ ID NO: 520, SEQ ID NO: 521, SEQ ID NO: 522, SEQ ID NO: 524, SEQ ID NO: 526, SEQ ID NO: 528, SEQ ID NO: 531, SEQ ID NO: 533, SEQ ID NO: 535, or SEQ ID NO: 536, and a heavy chain variable domain of SEQ ID NO: 470; or

a light chain variable domain of SEQ ID NO: 471 and a heavy chain variable domain of SEQ ID NO: 473, SEQ ID NO: 476, SEQ ID NO: 478, SEQ ID NO: 481, SEQ ID NO: 483, SEQ ID NO: 484, SEQ ID NO: 485, SEQ ID NO: 486, SEQ ID NO: 488, SEQ ID NO: 489, SEQ ID NO: 491, SEQ ID NO: 493, SEQ ID NO: 494, SEQ ID NO: 495, SEQ ID NO: 498, SEQ ID NO: 503, SEQ ID NO: 506, SEQ ID NO: 508, SEQ ID NO: 510, SEQ ID NO: 511, or SEQ ID NO: 512; and

(g) a light chain variable domain of SEQ ID NO: 581, SEQ ID NO: 587, SEQ ID NO: 591, SEQ ID NO: 599, SEQ ID NO: 600, or SEQ ID NO: 604, and a heavy chain variable domain of SEQ ID NO: 539, SEQ ID NO: 542, SEQ ID NO: 544, SEQ ID NO: 545, SEQ ID NO: 552, SEQ ID NO: 553, SEQ ID NO: 556, SEQ ID NO: 557, SEQ ID NO: 558, SEQ ID NO: 564, SEQ ID NO: 566, SEQ ID NO: 567, SEQ ID NO: 572, SEQ ID NO: 573, or SEQ ID NO: 575;

a light chain variable domain of SEQ ID NO: 581, SEQ ID NO: 587, SEQ ID NO: 591, SEQ ID NO: 599, SEQ ID NO: 600, or SEQ ID NO: 604, and a heavy chain variable domain of SEQ ID NO: 537; or

a light chain variable domain of SEQ ID NO: 538, and a heavy chain variable domain of SEQ ID NO: 539, SEQ ID NO: 542, SEQ ID NO: 544, SEQ ID NO: 545, SEQ ID NO: 552, SEQ ID NO: 553, SEQ ID NO: 556, SEQ ID NO: 557, SEQ ID NO: 558, SEQ ID NO: 564, SEQ ID NO: 566, SEQ ID NO: 567, SEQ ID NO: 572, SEQ ID NO: 573, or SEQ ID NO: 575.

17. The antibody or antigen-binding antibody fragment of any one of claims 12-16, wherein a composition comprising the antibody or antigen-binding antibody fragment provides for one or both of:

an increase in toxin liberation in the target mammalian cell as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment; and

an increase in target mammalian cell killing as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment.

18. The antibody or antigen-binding antibody fragment of any one of claims 12-17, wherein a composition comprising the antibody or antigen-binding antibody fragment provides for an increase in endolysosomal delivery in the target mammalian cell as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment.

19. The antibody or antigen-binding antibody fragment of any one of claims 12-18, wherein a composition comprising the antibody or antigen-binding antibody fragment:

results in a less of a reduction in the level of DLL3 presented on the surface of the target mammalian cell as compared to a composition comprising the same amount of a control antibody or antigen-binding antibody fragment; or

does not result in a detectable reduction in the level of DLL3 presented on the surface of the target mammalian cell.

20. The antibody or antigen-binding antibody fragment of any one of claims 12-19, wherein the target mammalian cell is a cancer cell.

21. The antibody or antigen-binding antibody fragment of any one of claims 12-20, wherein the antibody or antigen-binding antibody fragment is cytotoxic or cytostatic to the target mammalian cell.

22. The antibody or antigen-binding antibody fragment of any one of claims 12-21, wherein the antibody or antigen-binding antibody fragment is:

cross-reactive with a non-human primate DLL3 and human DLL3; or

cross-reactive with a non-human primate DLL3, a human DLL3, and one or both of rat DLL3 and a mouse DLL3.

23. A kit comprising at least one dose of the pharmaceutical composition of any one of claims 1-11 or the antibody or antigen-binding antibody fragment of any one of claims 12-22.

24. Use of a therapeutically effective amount of the pharmaceutical composition of any one of claims 1-11 or the antibody or antigen-binding antibody fragment of any one of claims 12-22 in the manufacture of a medicament for treating a cancer characterized by having a population of cancer cells that have DLL3 or an epitope of DLL3 presented on their surface.

25. Use of a therapeutically effective amount of the pharmaceutical composition of any one of claims 1-11 or the antibody or antigen-binding antibody fragment of any one of claims 12-22 in the manufacture of a medicament for reducing the volume of a tumor in a subject, wherein the tumor is characterized by having a population of cancer cells that have DLL3 or an epitope of DLL3 presented on their surface.

26. Use of a therapeutically effective amount of the pharmaceutical composition of any one of claims 1-11 or the antibody or antigen-binding antibody fragment of any one of claims 12-22 in the manufacture of a medicament for inducing cell death in a cancer cell in a subject, wherein the cancer cell has DLL3 or an epitope of DLL3 presented on its surface.

27. Use of a therapeutically effective amount of the pharmaceutical composition of any one of claims 1-11 or the antibody or antigen-binding antibody fragment of any one of claims 12-22 in the manufacture of a medicament for decreasing the risk of developing a metastasis or decreasing the risk of developing an additional metastasis in a subject having a cancer, wherein the cancer is characterized by having a population of cancer cells that have DLL3 or an epitope of DLL3 presented on their surface.