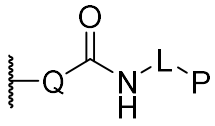
CLAIMS

What is claimed is:

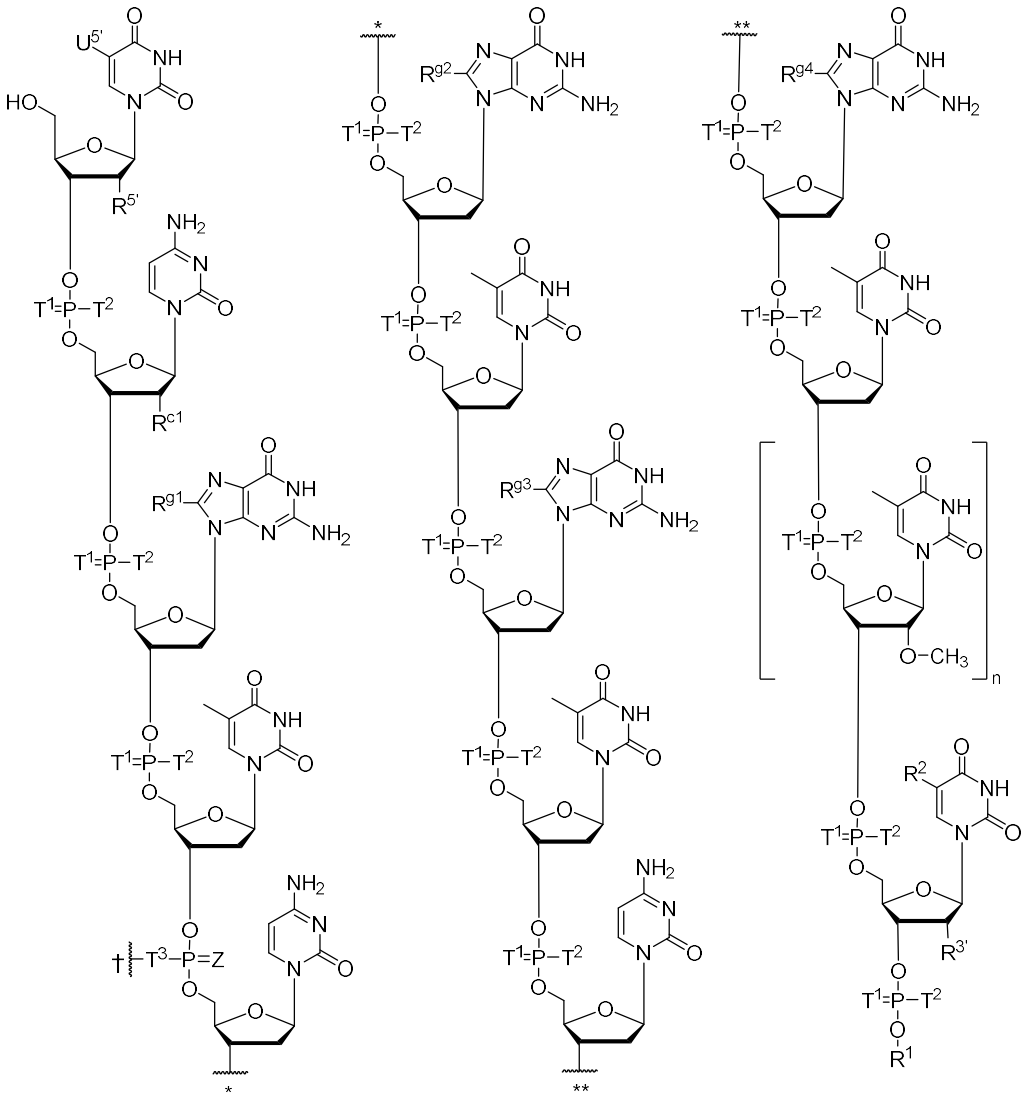
1. A conjugate comprising (i) an anti-nectin-4 antibody or antigen binding fragment thereof and (ii) one or more immunomodulating oligonucleotides (P), wherein the antibody or antigen-binding fragment is linked to one or more Q-tag peptides (Q) comprising at least one glutamine residue, and wherein each immunomodulating oligonucleotide is linked to a Q-tag peptide via an amide bond with the glutamine residue of the Q-tag peptide and a linker (L) as shown in Formula (A):



(A);

wherein ~~~ indicates the point of attachment of each Q to the antibody or antigen-binding fragment thereof (Ab);

wherein each P is independently an immunomodulating oligonucleotide comprising the structure

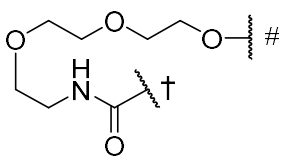


wherein

〰 * and 〰 ** indicate the points of attachment within the oligonucleotide, and wherein 〰 † indicates the point of attachment to the linker L;

each T^1 is independently O or S;

each T^2 is S^-;



T^3 is a group , wherein 〰 † indicates the point of attachment to L and wherein 〰 # indicates the point of attachment to the rest of the oligonucleotide;

Z is O or S;

$U^{5'}$ is –H or halogen;

$R^{5'}$ is -H or methoxy;

R^{c1} is -H or methoxy;

R^{g1}, R^{g2}, R^{g3}, and R^{g4} are H;

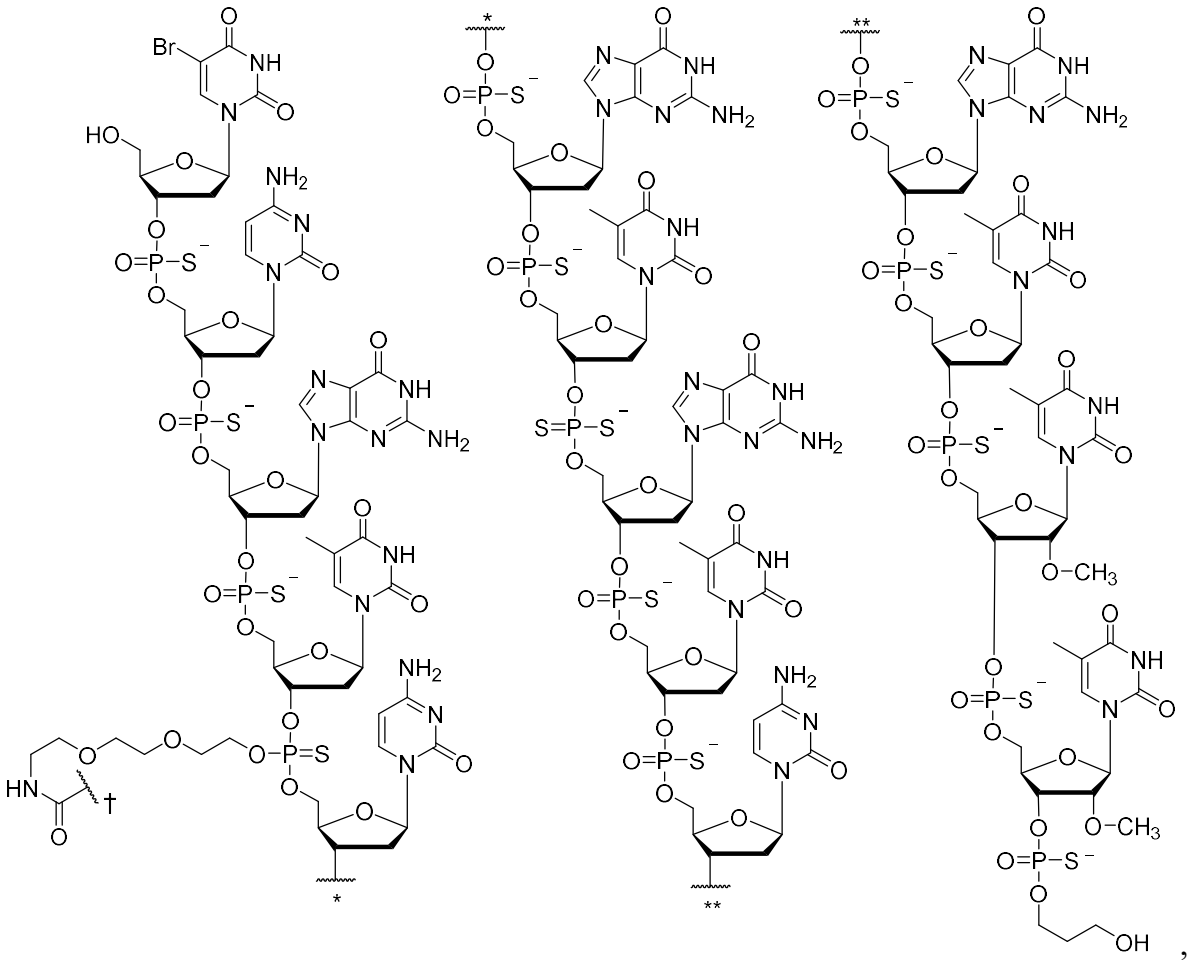
$R^{3'}$ is methoxy;

R^1 is $-(CH_2)_3$-OH;

R^2 is -H or methyl; and

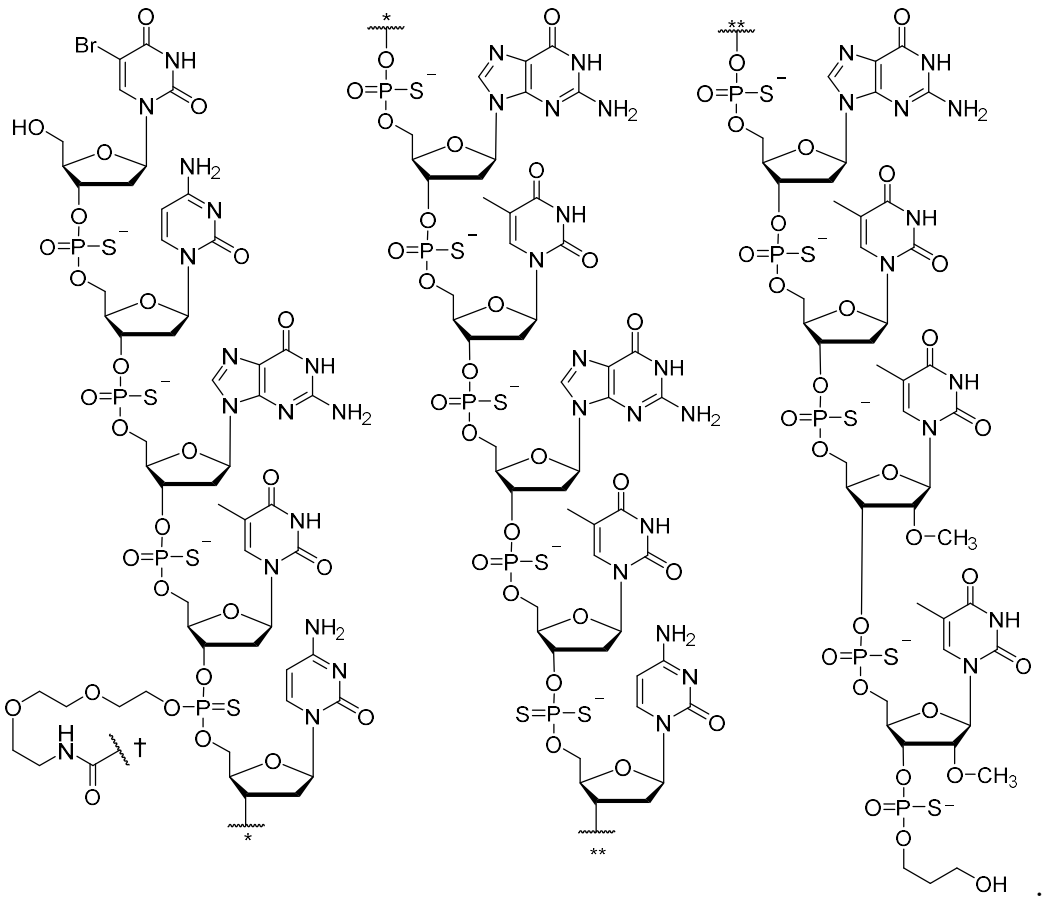
n is an integer from 0 to 2.

2. The conjugate of claim 1, wherein the immunomodulating oligonucleotide comprises an oligonucleotide having the structure



,

or



3. The conjugate of claim 1 or claim 2, wherein the antibody comprises a heavy chain variable region (VH) domain and a light chain variable region (VL) domain, wherein:

(a) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:275, CDR-H2 comprises SEQ ID NO:276, CDR-H3 comprises SEQ ID NO:277, CDR-L1 comprises SEQ ID NO:272, CDR-L2 comprises SEQ ID NO:273, and CDR-L3 comprises SEQ ID NO:274;

(b) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:293, CDR-H2 comprises SEQ ID NO:294, CDR-H3 comprises SEQ ID NO:295, CDR-L1 comprises SEQ ID NO:290, CDR-L2 comprises SEQ ID NO:291, and CDR-L3 comprises SEQ ID NO:292;

(c) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:311, CDR-H2 comprises SEQ ID NO:312, CDR-H3 comprises SEQ ID NO:313, CDR-L1 comprises SEQ ID NO:308, CDR-L2 comprises SEQ ID NO:309, and CDR-L3 comprises SEQ ID NO:310;

(d) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:329, CDR-H2 comprises SEQ ID NO:330, CDR-H3 comprises SEQ ID NO:331, CDR-L1 comprises SEQ ID NO:326, CDR-L2 comprises SEQ ID NO:327, and CDR-L3 comprises SEQ ID NO:328;

(e) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:347, CDR-H2 comprises SEQ ID NO:348, CDR-H3 comprises SEQ ID NO:349, CDR-L1 comprises SEQ ID NO:344, CDR-L2 comprises SEQ ID NO:345, and CDR-L3 comprises SEQ ID NO:346;

(f) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:365, CDR-H2 comprises SEQ ID NO:366, CDR-H3 comprises SEQ ID NO:367, CDR-L1 comprises SEQ ID NO:362, CDR-L2 comprises SEQ ID NO:363, and CDR-L3 comprises SEQ ID NO:364;

(g) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:383, CDR-H2 comprises SEQ ID NO:384, CDR-H3 comprises SEQ ID NO:385, CDR-L1 comprises SEQ ID NO:380, CDR-L2 comprises SEQ ID NO:381, and CDR-L3 comprises SEQ ID NO:382;

(h) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:401, CDR-H2 comprises SEQ ID NO:402, CDR-H3 comprises SEQ ID NO:403, CDR-L1 comprises SEQ ID NO:398, CDR-L2 comprises SEQ ID NO:399, and CDR-L3 comprises SEQ ID NO:400;

(i) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:419, CDR-H2 comprises SEQ ID NO:420, CDR-H3 comprises SEQ ID NO:421, CDR-L1 comprises SEQ ID NO:416, CDR-L2 comprises SEQ ID NO:417, and CDR-L3 comprises SEQ ID NO:418;

(j) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:437, CDR-H2 comprises SEQ ID NO:438, CDR-H3 comprises SEQ ID NO:439,

CDR-L1 comprises SEQ ID NO:434, CDR-L2 comprises SEQ ID NO:435, and CDR-L3 comprises SEQ ID NO:436;

(k) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:455, CDR-H2 comprises SEQ ID NO:456, CDR-H3 comprises SEQ ID NO:457, CDR-L1 comprises SEQ ID NO:452, CDR-L2 comprises SEQ ID NO:453, and CDR-L3 comprises SEQ ID NO:454;

(l) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:281, CDR-H2 comprises SEQ ID NO:282, CDR-H3 comprises SEQ ID NO:283, CDR-L1 comprises SEQ ID NO:278, CDR-L2 comprises SEQ ID NO:279, and CDR-L3 comprises SEQ ID NO:280;

(m) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:299, CDR-H2 comprises SEQ ID NO:300, CDR-H3 comprises SEQ ID NO:301, CDR-L1 comprises SEQ ID NO:296, CDR-L2 comprises SEQ ID NO:297, and CDR-L3 comprises SEQ ID NO:298;

(n) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:317, CDR-H2 comprises SEQ ID NO:318, CDR-H3 comprises SEQ ID NO:319, CDR-L1 comprises SEQ ID NO:314, CDR-L2 comprises SEQ ID NO:315, and CDR-L3 comprises SEQ ID NO:316;

(o) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:335, CDR-H2 comprises SEQ ID NO:336, CDR-H3 comprises SEQ ID NO:337, CDR-L1 comprises SEQ ID NO:332, CDR-L2 comprises SEQ ID NO:333, and CDR-L3 comprises SEQ ID NO:334;

(p) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:353, CDR-H2 comprises SEQ ID NO:354, CDR-H3 comprises SEQ ID NO:355, CDR-L1 comprises SEQ ID NO:350, CDR-L2 comprises SEQ ID NO:351, and CDR-L3 comprises SEQ ID NO:352;

(q) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID

NO:371, CDR-H2 comprises SEQ ID NO:372, CDR-H3 comprises SEQ ID NO:373, CDR-L1 comprises SEQ ID NO:368, CDR-L2 comprises SEQ ID NO:369, and CDR-L3 comprises SEQ ID NO:370;

(r) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:389, CDR-H2 comprises SEQ ID NO:390, CDR-H3 comprises SEQ ID NO:391, CDR-L1 comprises SEQ ID NO:386, CDR-L2 comprises SEQ ID NO:387, and CDR-L3 comprises SEQ ID NO:388;

(s) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:407, CDR-H2 comprises SEQ ID NO:408, CDR-H3 comprises SEQ ID NO:409, CDR-L1 comprises SEQ ID NO:404, CDR-L2 comprises SEQ ID NO:405, and CDR-L3 comprises SEQ ID NO:406;

(t) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:425, CDR-H2 comprises SEQ ID NO:426, CDR-H3 comprises SEQ ID NO:427, CDR-L1 comprises SEQ ID NO:422, CDR-L2 comprises SEQ ID NO:423, and CDR-L3 comprises SEQ ID NO:424;

(u) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:443, CDR-H2 comprises SEQ ID NO:444, CDR-H3 comprises SEQ ID NO:445, CDR-L1 comprises SEQ ID NO:440, CDR-L2 comprises SEQ ID NO:441, and CDR-L3 comprises SEQ ID NO:442;

(v) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:461, CDR-H2 comprises SEQ ID NO:462, CDR-H3 comprises SEQ ID NO:463, CDR-L1 comprises SEQ ID NO:458, CDR-L2 comprises SEQ ID NO:459, and CDR-L3 comprises SEQ ID NO:460;

(w) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:287, CDR-H2 comprises SEQ ID NO:288, CDR-H3 comprises SEQ ID NO:289, CDR-L1 comprises SEQ ID NO:284, CDR-L2 comprises SEQ ID NO:285, and CDR-L3 comprises SEQ ID NO:286;

(x) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:305, CDR-H2 comprises SEQ ID NO:306, CDR-H3 comprises SEQ ID NO:307, CDR-L1 comprises SEQ ID NO:302, CDR-L2 comprises SEQ ID NO:303, and CDR-L3 comprises SEQ ID NO:304;

(y) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:323, CDR-H2 comprises SEQ ID NO:324, CDR-H3 comprises SEQ ID NO:325, CDR-L1 comprises SEQ ID NO:320, CDR-L2 comprises SEQ ID NO:321, and CDR-L3 comprises SEQ ID NO:322;

(z) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:341, CDR-H2 comprises SEQ ID NO:342, CDR-H3 comprises SEQ ID NO:343, CDR-L1 comprises SEQ ID NO:338, CDR-L2 comprises SEQ ID NO:339, and CDR-L3 comprises SEQ ID NO:340;

(aa) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:359, CDR-H2 comprises SEQ ID NO:360, CDR-H3 comprises SEQ ID NO:361, CDR-L1 comprises SEQ ID NO:356, CDR-L2 comprises SEQ ID NO:357, and CDR-L3 comprises SEQ ID NO:358;

(bb) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:377, CDR-H2 comprises SEQ ID NO:378, CDR-H3 comprises SEQ ID NO:379, CDR-L1 comprises SEQ ID NO:374, CDR-L2 comprises SEQ ID NO:375, and CDR-L3 comprises SEQ ID NO:376;

(cc) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:395, CDR-H2 comprises SEQ ID NO:396, CDR-H3 comprises SEQ ID NO:397, CDR-L1 comprises SEQ ID NO:392, CDR-L2 comprises SEQ ID NO:393, and CDR-L3 comprises SEQ ID NO:394;

(dd) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:413, CDR-H2 comprises SEQ ID NO:414, CDR-H3 comprises SEQ ID NO:415,

CDR-L1 comprises SEQ ID NO:410, CDR-L2 comprises SEQ ID NO:411, and CDR-L3 comprises SEQ ID NO:412;

(ee) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:431, CDR-H2 comprises SEQ ID NO:432, CDR-H3 comprises SEQ ID NO:433, CDR-L1 comprises SEQ ID NO:428, CDR-L2 comprises SEQ ID NO:429, and CDR-L3 comprises SEQ ID NO:430;

(ff) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:449, CDR-H2 comprises SEQ ID NO:450, CDR-H3 comprises SEQ ID NO:451, CDR-L1 comprises SEQ ID NO:446, CDR-L2 comprises SEQ ID NO:447, and CDR-L3 comprises SEQ ID NO:448;

(gg) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:467, CDR-H2 comprises SEQ ID NO:468, CDR-H3 comprises SEQ ID NO:469, CDR-L1 comprises SEQ ID NO:464, CDR-L2 comprises SEQ ID NO:465, and CDR-L3 comprises SEQ ID NO:466;

(hh) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:479, CDR-H2 comprises SEQ ID NO:480, CDR-H3 comprises SEQ ID NO:481, CDR-L1 comprises SEQ ID NO:476, CDR-L2 comprises SEQ ID NO:477, and CDR-L3 comprises SEQ ID NO:478;

(ii) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:485, CDR-H2 comprises SEQ ID NO:486, CDR-H3 comprises SEQ ID NO:487, CDR-L1 comprises SEQ ID NO:482, CDR-L2 comprises SEQ ID NO:483, and CDR-L3 comprises SEQ ID NO:484;

(jj) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:473, CDR-H2 comprises SEQ ID NO:474, CDR-H3 comprises SEQ ID NO:475, CDR-L1 comprises SEQ ID NO:470, CDR-L2 comprises SEQ ID NO:471, and CDR-L3 comprises SEQ ID NO:472;

(kk) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID

NO:562, CDR-L2 comprises SEQ ID NO:563, and CDR-L3 comprises SEQ ID NO:564, wherein CDR-H1 comprises SEQ ID NO:565, CDR-H2 comprises SEQ ID NO:566, and CDR-H3 comprises SEQ ID NO:567;

(ll) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:580, CDR-L2 comprises SEQ ID NO:581, and CDR-L3 comprises SEQ ID NO:582, wherein CDR-H1 comprises SEQ ID NO:583, CDR-H2 comprises SEQ ID NO:584, and CDR-H3 comprises SEQ ID NO:585;

(mm) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:598, CDR-L2 comprises SEQ ID NO:599, and CDR-L3 comprises SEQ ID NO:600, wherein CDR-H1 comprises SEQ ID NO:601, CDR-H2 comprises SEQ ID NO:602, and CDR-H3 comprises SEQ ID NO:603;

(nn) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:616, CDR-L2 comprises SEQ ID NO:617, and CDR-L3 comprises SEQ ID NO:618, wherein CDR-H1 comprises SEQ ID NO:619, CDR-H2 comprises SEQ ID NO:620, and CDR-H3 comprises SEQ ID NO:621;

(oo) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:634, CDR-L2 comprises SEQ ID NO:635, and CDR-L3 comprises SEQ ID NO:636, wherein CDR-H1 comprises SEQ ID NO:637, CDR-H2 comprises SEQ ID NO:638, and CDR-H3 comprises SEQ ID NO:639;

(pp) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:652, CDR-L2 comprises SEQ ID NO:653, and CDR-L3 comprises SEQ ID NO:654, wherein CDR-H1 comprises SEQ ID NO:655, CDR-H2 comprises SEQ ID NO:656, and CDR-H3 comprises SEQ ID NO:657;

(qq) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:670, CDR-L2 comprises SEQ ID NO:671, and CDR-L3 comprises SEQ ID NO:672, wherein CDR-H1 comprises SEQ ID NO:673, CDR-H2 comprises SEQ ID NO:674, and CDR-H3 comprises SEQ ID NO:675;

(rr) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:688, CDR-L2 comprises SEQ ID NO:689, and CDR-L3 comprises SEQ ID NO:690, wherein CDR-H1 comprises SEQ ID NO:691, CDR-H2 comprises SEQ ID NO:692, and CDR-H3 comprises SEQ ID NO:693;

(ss) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:706, CDR-L2 comprises SEQ ID NO:707, and CDR-L3 comprises SEQ ID NO:708, wherein CDR-H1 comprises SEQ ID NO:709, CDR-H2 comprises SEQ ID NO:710, and CDR-H3 comprises SEQ ID NO:711;

(tt) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:724, CDR-L2 comprises SEQ ID NO:725, and CDR-L3 comprises SEQ ID NO:726, wherein CDR-H1 comprises SEQ ID NO:727, CDR-H2 comprises SEQ ID NO:728, and CDR-H3 comprises SEQ ID NO:729;

(uu) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:742, CDR-L2 comprises SEQ ID NO:743, and CDR-L3 comprises SEQ ID NO:744, wherein CDR-H1 comprises SEQ ID NO:745, CDR-H2 comprises SEQ ID NO:746, and CDR-H3 comprises SEQ ID NO:747;

(vv) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:760, CDR-L2 comprises SEQ ID NO:761, and CDR-L3 comprises SEQ ID NO:762, wherein CDR-H1 comprises SEQ ID NO:763, CDR-H2 comprises SEQ ID NO:764, and CDR-H3 comprises SEQ ID NO:765;

(ww) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:778, CDR-L2 comprises SEQ ID NO:779, and CDR-L3 comprises SEQ ID NO:780, wherein CDR-H1 comprises SEQ ID NO:781, CDR-H2 comprises SEQ ID NO:782, and CDR-H3 comprises SEQ ID NO:783;

(xx) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:796, CDR-L2 comprises SEQ ID NO:797, and CDR-L3 comprises SEQ ID

NO:798, wherein CDR-H1 comprises SEQ ID NO:799, CDR-H2 comprises SEQ ID NO:800, and CDR-H3 comprises SEQ ID NO:801;

(yy) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:814, CDR-L2 comprises SEQ ID NO:815, and CDR-L3 comprises SEQ ID NO:816, wherein CDR-H1 comprises SEQ ID NO:817, CDR-H2 comprises SEQ ID NO:818, and CDR-H3 comprises SEQ ID NO:819; or

(zz) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:832, CDR-L2 comprises SEQ ID NO:833, and CDR-L3 comprises SEQ ID NO:834, wherein CDR-H1 comprises SEQ ID NO:835, CDR-H2 comprises SEQ ID NO:836, and CDR-H3 comprises SEQ ID NO:837; or

(aaa) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:676, CDR-L2 comprises SEQ ID NO:677, and CDR-L3 comprises SEQ ID NO:678, wherein CDR-H1 comprises SEQ ID NO:679, CDR-H2 comprises SEQ ID NO:680, CDR-H3 comprises SEQ ID NO:681.

4. The conjugate of any one of claims 1-3, wherein the antibody comprises a light chain variable region (VL) domain and a heavy chain variable region (VH) domain, wherein:

(a) the VH domain comprises the sequence of amino acids selected from the group consisting of SEQ ID NOs:249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 901, 903, 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, and 945 and/or the VL domain comprises the sequence of amino acids selected from the group consisting of SEQ ID NOs: 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, and 944;

(b) the VL domain comprises the sequence of SEQ ID NO:248 and/or the VH domain comprises the sequence of SEQ ID NO:249;

(c) the VL domain comprises the sequence of SEQ ID NO:250 and/or the VH domain comprises the sequence of SEQ ID NO:251;

(d) the VL domain comprises the sequence of SEQ ID NO:252 and/or the VH domain comprises the sequence of SEQ ID NO:253;

(e) the VL domain comprises the sequence of SEQ ID NO:254 and/or the VH domain comprises the sequence of SEQ ID NO:255;

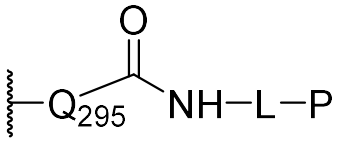
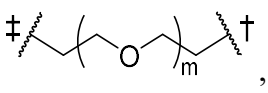
(f) the VL domain comprises the sequence of SEQ ID NO:256 and/or the VH domain comprises the sequence of SEQ ID NO:257;
(g) the VL domain comprises the sequence of SEQ ID NO:258 and/or the VH domain comprises the sequence of SEQ ID NO:259;
(h) the VL domain comprises the sequence of SEQ ID NO:260 and/or the VH domain comprises the sequence of SEQ ID NO:261;
(i) the VL domain comprises the sequence of SEQ ID NO:262 and/or the VH domain comprises the sequence of SEQ ID NO:263;
(j) the VL domain comprises the sequence of SEQ ID NO:264 and/or the VH domain comprises the sequence of SEQ ID NO:265;
(k) the VL domain comprises the sequence of SEQ ID NO:266 and/or the VH domain comprises the sequence of SEQ ID NO:267;
(l) the VL domain comprises the sequence of SEQ ID NO:268 and/or the VH domain comprises the sequence of SEQ ID NO:269;
(m) the VL domain comprises the sequence of SEQ ID NO:270 and/or the VH domain comprises the sequence of SEQ ID NO:271;
(n) the VL domain comprises the sequence of SEQ ID NO:900 and/or the VH domain comprises the sequence of SEQ ID NO:901;
(o) the VL domain comprises the sequence of SEQ ID NO:902 and/or the VH domain comprises the sequence of SEQ ID NO:903;
(p) the VL domain comprises the sequence of SEQ ID NO:904 and/or the VH domain comprises the sequence of SEQ ID NO:905;
(q) the VL domain comprises the sequence of SEQ ID NO:906 and/or the VH domain comprises the sequence of SEQ ID NO:907;
(r) the VL domain comprises the sequence of SEQ ID NO:908 and/or the VH domain comprises the sequence of SEQ ID NO:909;
(s) the VL domain comprises the sequence of SEQ ID NO:910 and/or the VH domain comprises the sequence of SEQ ID NO:911;
(t) the VL domain comprises the sequence of SEQ ID NO:912 and/or the VH domain comprises the sequence of SEQ ID NO:913;
(u) the VL domain comprises the sequence of SEQ ID NO:914 and/or the VH domain comprises the sequence of SEQ ID NO:915;
(v) the VL domain comprises the sequence of SEQ ID NO:916 and/or the VH domain comprises the sequence of SEQ ID NO:917;

(w) the VL domain comprises the sequence of SEQ ID NO:918 and/or the VH domain comprises the sequence of SEQ ID NO:919;
(x) the VL domain comprises the sequence of SEQ ID NO:920 and/or the VH domain comprises the sequence of SEQ ID NO:921;
(y) the VL domain comprises the sequence of SEQ ID NO:922 and/or the VH domain comprises the sequence of SEQ ID NO:923;
(z) the VL domain comprises the sequence of SEQ ID NO:924 and/or the VH domain comprises the sequence of SEQ ID NO:925;
(aa) the VL domain comprises the sequence of SEQ ID NO:926 and/or the VH domain comprises the sequence of SEQ ID NO:927;
(bb) the VL domain comprises the sequence of SEQ ID NO:928 and/or the VH domain comprises the sequence of SEQ ID NO:929;
(cc) the VL domain comprises the sequence of SEQ ID NO:930 and/or the VH domain comprises the sequence of SEQ ID NO:931;
(dd) the VL domain comprises the sequence of SEQ ID NO:932 and/or the VH domain comprises the sequence of SEQ ID NO:933;
(ee) the VL domain comprises the sequence of SEQ ID NO:934 and/or the VH domain comprises the sequence of SEQ ID NO:935;
(ff) the VL domain comprises the sequence of SEQ ID NO:936 and/or the VH domain comprises the sequence of SEQ ID NO:937;
(gg) the VL domain comprises the sequence of SEQ ID NO:938 and/or the VH domain comprises the sequence of SEQ ID NO:939;
(hh) the VL domain comprises the sequence of SEQ ID NO:940 and/or the VH domain comprises the sequence of SEQ ID NO:941;
(ii) the VL domain comprises the sequence of SEQ ID NO:942 and/or the VH domain comprises the sequence of SEQ ID NO:943; or
(jj) the VL domain comprises the sequence of SEQ ID NO:944 and/or the VH domain comprises the sequence of SEQ ID NO:945.

5. The conjugate of any one of claims 1-4, wherein the antibody is a Fab, F(ab')2, Fab'-SH, Fv, scFv, single domain, single heavy chain, or single light chain antibody or antibody fragment.

6. The conjugate of any one of claims 1-5, wherein the antibody is a humanized, human, or chimeric antibody or fragment thereof.

7. The conjugate of any one of claims 1-6, wherein the antibody comprises an Fc region.

8. The conjugate of claim 7, wherein the Fc region is a human Fc region selected from the group consisting of an IgG1 Fc region, an IgG2 Fc region, and an IgG4 Fc region.
9. The conjugate of claim 7 or claim 8, wherein the Fc region is a human IgG1 Fc region.
10. The conjugate of any one of claims 7-9, wherein the Fc region has been engineered to improve effector function, optionally wherein the improved effector function is antibody-dependent cell-mediated cytotoxicity (ADCC) activity, antibody-dependent cellular phagocytosis (ADCP) activity, or complement-dependent cytotoxicity (CDC) activity.
11. The conjugate of claim 10, wherein the Fc region comprises one or more of (a) the substitution G236A, with amino acid position according to EU index; (b) at least one or at least two of the heavy chains of the antibody is/are non-fucosylated; and (c) the Fc region comprises an N297A substitution, amino acid position numbering according to EU index.
12. The conjugate of any one of claims 7-11, wherein the conjugate further comprises an immunomodulating oligonucleotide P attached to the Q295 of the Fc region residue as shown in the following formula , wherein L is a linker moiety connected to Q295 of the Fc region via an amide bond.
13. The conjugate of any one of claims 1-12, wherein the antibody comprises an antibody heavy chain constant domain comprising an amino acid sequence selected from the group consisting of SEQ ID NOs:92-107, 111,112, 178, and 494-497.
14. The conjugate of any one of claims 1-13, wherein the antibody comprises an antibody light chain constant domain comprising an amino acid sequence selected from the group consisting of SEQ ID Nos:108-110.
15. The conjugate of any one of claims 1-11, 13 or 14, wherein 1 or 2 Q-tags is/are linked to the antibody and wherein the Q-tag comprises the peptide sequence RPQGF (SEQ ID NO:47).
16. The conjugate of any one of claims 1-15, wherein the conjugate has a DAR of 1 or 2.
17. The conjugate of any one of claims 1-16, wherein the linker L is , wherein m is an integer ranging from about 0 to about 50, and wherein ~~† indicates the point of attachment to T^3, and ~~‡ indicates the point of attachment to the rest of the conjugate.

18. The conjugate of claim 17, wherein m is about 24.

19. The conjugate of any one of claims 1 and 3-18, wherein Z is S.

20. The conjugate any one of claims 1 and 3-19, wherein the oligonucleotide P comprises at least one pair or at least two pairs of geminal T^1 and T^2 wherein T^1 is S and T^2 is S^-.

21. The conjugate of any one of claims 1 and 3-20, wherein $U^{5'}$ is bromo or -H.

22. The conjugate of any one of claims 1 and 3-16, wherein each P independently comprises an oligonucleotide selected from Table 2, Table 3, and Table 4.

23. An antibody that specifically binds to human nectin-4, wherein the antibody comprises a light chain variable region (VL) domain and a heavy chain variable region (VH) domain, wherein:

(a) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain selected from the group consisting of SEQ ID NOs:248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, and 944 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 sequences from a VH domain selected from the group consisting of SEQ ID NOs:249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 901, 903, 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, and 945;

(b) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:248 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:249;

(c) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:250 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:251;

(d) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:252 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:253;

(e) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:254 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:255;

(f) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:256 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:257;

(g) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:258 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:259;

(h) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:260 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:261;

(i) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:262 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:263;

(j) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:264 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:265;

(k) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:266 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:267;

(l) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:268 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:269;

(m) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:270 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:271

(n) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:900 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:901;

(o) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:902 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:903;

(p) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:904 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:905;

(q) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:906 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:907;

(r) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:908 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:909;

(s) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:910 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:911;

(t) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:912 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:913;

(u) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:914 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:915;

(v) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:916 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:917;

(w) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:918 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:919;

(x) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:920 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:921;

(y) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:922 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:923;

(z) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:924 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:925;

(aa) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:926 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:927;

(bb) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:928 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:929;

(cc) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:930 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:931;

(dd) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO932: and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:933;

(ee) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:934 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:935;

(ff) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:936 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:937;

(gg) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:938 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:939;

(hh) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:940 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:941;

(ii) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:942 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:943; or

(jj) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 sequences from a VL domain of SEQ ID NO:944 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 from a VH domain of SEQ ID NO:945.

24. The antibody of claim 23, wherein:

(a) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:275, CDR-H2 comprises SEQ ID NO:276, CDR-H3 comprises SEQ ID NO:277, CDR-L1 comprises SEQ ID NO:272, CDR-L2 comprises SEQ ID NO:273, and CDR-L3 comprises SEQ ID NO:274;

(b) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:293, CDR-H2 comprises SEQ ID NO:294, CDR-H3 comprises SEQ ID NO:295,

CDR-L1 comprises SEQ ID NO:290, CDR-L2 comprises SEQ ID NO:291, and CDR-L3 comprises SEQ ID NO:292;

(c) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:311, CDR-H2 comprises SEQ ID NO:312, CDR-H3 comprises SEQ ID NO:313, CDR-L1 comprises SEQ ID NO:308, CDR-L2 comprises SEQ ID NO:309, and CDR-L3 comprises SEQ ID NO:310;

(d) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:329, CDR-H2 comprises SEQ ID NO:330, CDR-H3 comprises SEQ ID NO:331, CDR-L1 comprises SEQ ID NO:326, CDR-L2 comprises SEQ ID NO:327, and CDR-L3 comprises SEQ ID NO:328;

(e) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:347, CDR-H2 comprises SEQ ID NO:348, CDR-H3 comprises SEQ ID NO:349, CDR-L1 comprises SEQ ID NO:344, CDR-L2 comprises SEQ ID NO:345, and CDR-L3 comprises SEQ ID NO:346;

(f) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:365, CDR-H2 comprises SEQ ID NO:366, CDR-H3 comprises SEQ ID NO:367, CDR-L1 comprises SEQ ID NO:362, CDR-L2 comprises SEQ ID NO:363, and CDR-L3 comprises SEQ ID NO:364;

(g) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:383, CDR-H2 comprises SEQ ID NO:384, CDR-H3 comprises SEQ ID NO:385, CDR-L1 comprises SEQ ID NO:380, CDR-L2 comprises SEQ ID NO:381, and CDR-L3 comprises SEQ ID NO:382;

(h) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:401, CDR-H2 comprises SEQ ID NO:402, CDR-H3 comprises SEQ ID NO:403, CDR-L1 comprises SEQ ID NO:398, CDR-L2 comprises SEQ ID NO:399, and CDR-L3 comprises SEQ ID NO:400;

(i) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID

NO:419, CDR-H2 comprises SEQ ID NO:420, CDR-H3 comprises SEQ ID NO:421, CDR-L1 comprises SEQ ID NO:416, CDR-L2 comprises SEQ ID NO:417, and CDR-L3 comprises SEQ ID NO:418;

(j) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:437, CDR-H2 comprises SEQ ID NO:438, CDR-H3 comprises SEQ ID NO:439, CDR-L1 comprises SEQ ID NO:434, CDR-L2 comprises SEQ ID NO:435, and CDR-L3 comprises SEQ ID NO:436;

(k) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:455, CDR-H2 comprises SEQ ID NO:456, CDR-H3 comprises SEQ ID NO:457, CDR-L1 comprises SEQ ID NO:452, CDR-L2 comprises SEQ ID NO:453, and CDR-L3 comprises SEQ ID NO:454;

(l) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:281, CDR-H2 comprises SEQ ID NO:282, CDR-H3 comprises SEQ ID NO:283, CDR-L1 comprises SEQ ID NO:278, CDR-L2 comprises SEQ ID NO:279, and CDR-L3 comprises SEQ ID NO:280;

(m) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:299, CDR-H2 comprises SEQ ID NO:300, CDR-H3 comprises SEQ ID NO:301, CDR-L1 comprises SEQ ID NO:296, CDR-L2 comprises SEQ ID NO:297, and CDR-L3 comprises SEQ ID NO:298;

(n) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:317, CDR-H2 comprises SEQ ID NO:318, CDR-H3 comprises SEQ ID NO:319, CDR-L1 comprises SEQ ID NO:314, CDR-L2 comprises SEQ ID NO:315, and CDR-L3 comprises SEQ ID NO:316;

(o) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:335, CDR-H2 comprises SEQ ID NO:336, CDR-H3 comprises SEQ ID NO:337, CDR-L1 comprises SEQ ID NO:332, CDR-L2 comprises SEQ ID NO:333, and CDR-L3 comprises SEQ ID NO:334;

(p) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:353, CDR-H2 comprises SEQ ID NO:354, CDR-H3 comprises SEQ ID NO:355, CDR-L1 comprises SEQ ID NO:350, CDR-L2 comprises SEQ ID NO:351, and CDR-L3 comprises SEQ ID NO:352;

(q) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:371, CDR-H2 comprises SEQ ID NO:372, CDR-H3 comprises SEQ ID NO:373, CDR-L1 comprises SEQ ID NO:368, CDR-L2 comprises SEQ ID NO:369, and CDR-L3 comprises SEQ ID NO:370;

(r) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:389, CDR-H2 comprises SEQ ID NO:390, CDR-H3 comprises SEQ ID NO:391, CDR-L1 comprises SEQ ID NO:386, CDR-L2 comprises SEQ ID NO:387, and CDR-L3 comprises SEQ ID NO:388;

(s) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:407, CDR-H2 comprises SEQ ID NO:408, CDR-H3 comprises SEQ ID NO:409, CDR-L1 comprises SEQ ID NO:404, CDR-L2 comprises SEQ ID NO:405, and CDR-L3 comprises SEQ ID NO:406;

(t) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:425, CDR-H2 comprises SEQ ID NO:426, CDR-H3 comprises SEQ ID NO:427, CDR-L1 comprises SEQ ID NO:422, CDR-L2 comprises SEQ ID NO:423, and CDR-L3 comprises SEQ ID NO:424;

(u) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:443, CDR-H2 comprises SEQ ID NO:444, CDR-H3 comprises SEQ ID NO:445, CDR-L1 comprises SEQ ID NO:440, CDR-L2 comprises SEQ ID NO:441, and CDR-L3 comprises SEQ ID NO:442;

(v) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:461, CDR-H2 comprises SEQ ID NO:462, CDR-H3 comprises SEQ ID NO:463,

CDR-L1 comprises SEQ ID NO:458, CDR-L2 comprises SEQ ID NO:459, and CDR-L3 comprises SEQ ID NO:460;

(w) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:287, CDR-H2 comprises SEQ ID NO:288, CDR-H3 comprises SEQ ID NO:289, CDR-L1 comprises SEQ ID NO:284, CDR-L2 comprises SEQ ID NO:285, and CDR-L3 comprises SEQ ID NO:286;

(x) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:305, CDR-H2 comprises SEQ ID NO:306, CDR-H3 comprises SEQ ID NO:307, CDR-L1 comprises SEQ ID NO:302, CDR-L2 comprises SEQ ID NO:303, and CDR-L3 comprises SEQ ID NO:304;

(y) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:323, CDR-H2 comprises SEQ ID NO:324, CDR-H3 comprises SEQ ID NO:325, CDR-L1 comprises SEQ ID NO:320, CDR-L2 comprises SEQ ID NO:321, and CDR-L3 comprises SEQ ID NO:322;

(z) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:341, CDR-H2 comprises SEQ ID NO:342, CDR-H3 comprises SEQ ID NO:343, CDR-L1 comprises SEQ ID NO:338, CDR-L2 comprises SEQ ID NO:339, and CDR-L3 comprises SEQ ID NO:340;

(aa) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:359, CDR-H2 comprises SEQ ID NO:360, CDR-H3 comprises SEQ ID NO:361, CDR-L1 comprises SEQ ID NO:356, CDR-L2 comprises SEQ ID NO:357, and CDR-L3 comprises SEQ ID NO:358;

(bb) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:377, CDR-H2 comprises SEQ ID NO:378, CDR-H3 comprises SEQ ID NO:379, CDR-L1 comprises SEQ ID NO:374, CDR-L2 comprises SEQ ID NO:375, and CDR-L3 comprises SEQ ID NO:376;

(cc) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID

NO:395, CDR-H2 comprises SEQ ID NO:396, CDR-H3 comprises SEQ ID NO:397, CDR-L1 comprises SEQ ID NO:392, CDR-L2 comprises SEQ ID NO:393, and CDR-L3 comprises SEQ ID NO:394;

(dd) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:413, CDR-H2 comprises SEQ ID NO:414, CDR-H3 comprises SEQ ID NO:415, CDR-L1 comprises SEQ ID NO:410, CDR-L2 comprises SEQ ID NO:411, and CDR-L3 comprises SEQ ID NO:412;

(ee) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:431, CDR-H2 comprises SEQ ID NO:432, CDR-H3 comprises SEQ ID NO:433, CDR-L1 comprises SEQ ID NO:428, CDR-L2 comprises SEQ ID NO:429, and CDR-L3 comprises SEQ ID NO:430;

(ff) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:449, CDR-H2 comprises SEQ ID NO:450, CDR-H3 comprises SEQ ID NO:451, CDR-L1 comprises SEQ ID NO:446, CDR-L2 comprises SEQ ID NO:447, and CDR-L3 comprises SEQ ID NO:448;

(gg) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:467, CDR-H2 comprises SEQ ID NO:468, CDR-H3 comprises SEQ ID NO:469, CDR-L1 comprises SEQ ID NO:464, CDR-L2 comprises SEQ ID NO:465, and CDR-L3 comprises SEQ ID NO:466;

(hh) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:479, CDR-H2 comprises SEQ ID NO:480, CDR-H3 comprises SEQ ID NO:481, CDR-L1 comprises SEQ ID NO:476, CDR-L2 comprises SEQ ID NO:477, and CDR-L3 comprises SEQ ID NO:478;

(ii) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:485, CDR-H2 comprises SEQ ID NO:486, CDR-H3 comprises SEQ ID NO:487, CDR-L1 comprises SEQ ID NO:482, CDR-L2 comprises SEQ ID NO:483, and CDR-L3 comprises SEQ ID NO:484;

(jj) the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, wherein CDR-H1 comprises SEQ ID NO:473, CDR-H2 comprises SEQ ID NO:474, CDR-H3 comprises SEQ ID NO:475, CDR-L1 comprises SEQ ID NO:470, CDR-L2 comprises SEQ ID NO:471, and CDR-L3 comprises SEQ ID NO:472;

(kk) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:562, CDR-L2 comprises SEQ ID NO:563, and CDR-L3 comprises SEQ ID NO:564, wherein CDR-H1 comprises SEQ ID NO:565, CDR-H2 comprises SEQ ID NO:566, and CDR-H3 comprises SEQ ID NO:567;

(ll) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:580, CDR-L2 comprises SEQ ID NO:581, and CDR-L3 comprises SEQ ID NO:582, wherein CDR-H1 comprises SEQ ID NO:583, CDR-H2 comprises SEQ ID NO:584, and CDR-H3 comprises SEQ ID NO:585;

(mm) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:598, CDR-L2 comprises SEQ ID NO:599, and CDR-L3 comprises SEQ ID NO:600, wherein CDR-H1 comprises SEQ ID NO:601, CDR-H2 comprises SEQ ID NO:602, and CDR-H3 comprises SEQ ID NO:603;

(nn) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:616, CDR-L2 comprises SEQ ID NO:617, and CDR-L3 comprises SEQ ID NO:618, wherein CDR-H1 comprises SEQ ID NO:619, CDR-H2 comprises SEQ ID NO:620, and CDR-H3 comprises SEQ ID NO:621;

(oo) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:634, CDR-L2 comprises SEQ ID NO:635, and CDR-L3 comprises SEQ ID NO:636, wherein CDR-H1 comprises SEQ ID NO:637, CDR-H2 comprises SEQ ID NO:638, and CDR-H3 comprises SEQ ID NO:639;

(pp) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:652, CDR-L2 comprises SEQ ID NO:653, and CDR-L3 comprises SEQ ID

NO:654, wherein CDR-H1 comprises SEQ ID NO:655, CDR-H2 comprises SEQ ID NO:656, and CDR-H3 comprises SEQ ID NO:657;

(qq) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:670, CDR-L2 comprises SEQ ID NO:671, and CDR-L3 comprises SEQ ID NO:672, wherein CDR-H1 comprises SEQ ID NO:673, CDR-H2 comprises SEQ ID NO:674, and CDR-H3 comprises SEQ ID NO:675;

(rr) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:688, CDR-L2 comprises SEQ ID NO:689, and CDR-L3 comprises SEQ ID NO:690, wherein CDR-H1 comprises SEQ ID NO:691, CDR-H2 comprises SEQ ID NO:692, and CDR-H3 comprises SEQ ID NO:693;

(ss) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:706, CDR-L2 comprises SEQ ID NO:707, and CDR-L3 comprises SEQ ID NO:708, wherein CDR-H1 comprises SEQ ID NO:709, CDR-H2 comprises SEQ ID NO:710, and CDR-H3 comprises SEQ ID NO:711;

(tt) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:724, CDR-L2 comprises SEQ ID NO:725, and CDR-L3 comprises SEQ ID NO:726, wherein CDR-H1 comprises SEQ ID NO:727, CDR-H2 comprises SEQ ID NO:728, and CDR-H3 comprises SEQ ID NO:729;

(uu) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:742, CDR-L2 comprises SEQ ID NO:743, and CDR-L3 comprises SEQ ID NO:744, wherein CDR-H1 comprises SEQ ID NO:745, CDR-H2 comprises SEQ ID NO:746, and CDR-H3 comprises SEQ ID NO:747;

(vv) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:760, CDR-L2 comprises SEQ ID NO:761, and CDR-L3 comprises SEQ ID NO:762, wherein CDR-H1 comprises SEQ ID NO:763, CDR-H2 comprises SEQ ID NO:764, and CDR-H3 comprises SEQ ID NO:765;

(ww) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID

NO:778, CDR-L2 comprises SEQ ID NO:779, and CDR-L3 comprises SEQ ID NO:780, wherein CDR-H1 comprises SEQ ID NO:781, CDR-H2 comprises SEQ ID NO:782, and CDR-H3 comprises SEQ ID NO:783;

(xx) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:796, CDR-L2 comprises SEQ ID NO:797, and CDR-L3 comprises SEQ ID NO:798, wherein CDR-H1 comprises SEQ ID NO:799, CDR-H2 comprises SEQ ID NO:800, and CDR-H3 comprises SEQ ID NO:801;

(yy) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:814, CDR-L2 comprises SEQ ID NO:815, and CDR-L3 comprises SEQ ID NO:816, wherein CDR-H1 comprises SEQ ID NO:817, CDR-H2 comprises SEQ ID NO:818, and CDR-H3 comprises SEQ ID NO:819; or

(zz) the VL domain comprises CDR-L1, CDR-L2, and CDR-L3 and the VH domain comprises CDR-H1, CDR-H2, and CDR-H3, wherein CDR-L1 comprises SEQ ID NO:832, CDR-L2 comprises SEQ ID NO:833, and CDR-L3 comprises SEQ ID NO:834, wherein CDR-H1 comprises SEQ ID NO:835, CDR-H2 comprises SEQ ID NO:836, and CDR-H3 comprises SEQ ID NO:837.

25. The antibody of claim 23 or claim 24, wherein:

(a) the VH domain comprises the sequence of amino acids selected from the group consisting of SEQ ID NOs:249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 901, 903, 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, and 945 and/or the VL domain comprises the sequence of amino acids selected from the group consisting of SEQ ID NOs: 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, and 944;

(b) the VL domain comprises the sequence of SEQ ID NO:248 and/or the VH domain comprises the sequence of SEQ ID NO:249;

(c) the VL domain comprises the sequence of SEQ ID NO:250 and/or the VH domain comprises the sequence of SEQ ID NO:251;

(d) the VL domain comprises the sequence of SEQ ID NO:252 and/or the VH domain comprises the sequence of SEQ ID NO:253;

(e) the VL domain comprises the sequence of SEQ ID NO:254 and/or the VH domain comprises the sequence of SEQ ID NO:255;

(f) the VL domain comprises the sequence of SEQ ID NO:256 and/or the VH domain comprises the sequence of SEQ ID NO:257;

(g) the VL domain comprises the sequence of SEQ ID NO:258 and/or the VH domain comprises the sequence of SEQ ID NO:259;

(h) the VL domain comprises the sequence of SEQ ID NO:260 and/or the VH domain comprises the sequence of SEQ ID NO:261;

(i) the VL domain comprises the sequence of SEQ ID NO:262 and/or the VH domain comprises the sequence of SEQ ID NO:263;

(j) the VL domain comprises the sequence of SEQ ID NO:264 and/or the VH domain comprises the sequence of SEQ ID NO:265;

(k) the VL domain comprises the sequence of SEQ ID NO:266 and/or the VH domain comprises the sequence of SEQ ID NO:267;

(l) the VL domain comprises the sequence of SEQ ID NO:268 and/or the VH domain comprises the sequence of SEQ ID NO:269;

(m) the VL domain comprises the sequence of SEQ ID NO:270 and/or the VH domain comprises the sequence of SEQ ID NO:271;

(n) the VL domain comprises the sequence of SEQ ID NO:900 and/or the VH domain comprises the sequence of SEQ ID NO:901;

(o) the VL domain comprises the sequence of SEQ ID NO:902 and/or the VH domain comprises the sequence of SEQ ID NO:903;

(p) the VL domain comprises the sequence of SEQ ID NO:904 and/or the VH domain comprises the sequence of SEQ ID NO:905;

(q) the VL domain comprises the sequence of SEQ ID NO:906 and/or the VH domain comprises the sequence of SEQ ID NO:907;

(r) the VL domain comprises the sequence of SEQ ID NO:908 and/or the VH domain comprises the sequence of SEQ ID NO:909;

(s) the VL domain comprises the sequence of SEQ ID NO:910 and/or the VH domain comprises the sequence of SEQ ID NO:911;

(t) the VL domain comprises the sequence of SEQ ID NO:912 and/or the VH domain comprises the sequence of SEQ ID NO:913;

(u) the VL domain comprises the sequence of SEQ ID NO:914 and/or the VH domain comprises the sequence of SEQ ID NO:915;

(v) the VL domain comprises the sequence of SEQ ID NO:916 and/or the VH domain comprises the sequence of SEQ ID NO:917;

(w) the VL domain comprises the sequence of SEQ ID NO:918 and/or the VH domain comprises the sequence of SEQ ID NO:919;

(x) the VL domain comprises the sequence of SEQ ID NO:920 and/or the VH domain comprises the sequence of SEQ ID NO:921;

(y) the VL domain comprises the sequence of SEQ ID NO:922 and/or the VH domain comprises the sequence of SEQ ID NO:923;

(z) the VL domain comprises the sequence of SEQ ID NO:924 and/or the VH domain comprises the sequence of SEQ ID NO:925;

(aa) the VL domain comprises the sequence of SEQ ID NO:926 and/or the VH domain comprises the sequence of SEQ ID NO:927;

(bb) the VL domain comprises the sequence of SEQ ID NO:928 and/or the VH domain comprises the sequence of SEQ ID NO:929;

(cc) the VL domain comprises the sequence of SEQ ID NO:930 and/or the VH domain comprises the sequence of SEQ ID NO:931;

(dd) the VL domain comprises the sequence of SEQ ID NO:932 and/or the VH domain comprises the sequence of SEQ ID NO:933;

(ee) the VL domain comprises the sequence of SEQ ID NO:934 and/or the VH domain comprises the sequence of SEQ ID NO:935;

(ff) the VL domain comprises the sequence of SEQ ID NO:936 and/or the VH domain comprises the sequence of SEQ ID NO:937;

(gg) the VL domain comprises the sequence of SEQ ID NO:938 and/or the VH domain comprises the sequence of SEQ ID NO:939;

(hh) the VL domain comprises the sequence of SEQ ID NO:940 and/or the VH domain comprises the sequence of SEQ ID NO:941;

(ii) the VL domain comprises the sequence of SEQ ID NO:942 and/or the VH domain comprises the sequence of SEQ ID NO:943; or

(jj) the VL domain comprises the sequence of SEQ ID NO:944 and/or the VH domain comprises the sequence of SEQ ID NO:945.

26. The antibody of any one of claims 23-25, wherein the antibody further comprises an amino acid sequence selected from the group consisting of SEQ ID Nos:92-107, 111, 112, 178, and 494-497.

27. The antibody of any one of claims 23-26, wherein the antibody is a Fab, F(ab')2, Fab'-SH, Fv, scFv, single domain, single heavy chain, or single light chain antibody or antibody fragment.

28. The antibody of any one of claims 23-25, wherein the antibody comprises an Fc region.

29. The antibody of any one of claims 23-28, wherein:

(a) the antibody comprises a light chain comprising a light chain sequence selected from the group consisting of SEQ ID NOs:236-247 and 1000-1022 and/or a heavy chain comprising a heavy chain sequence and a Q-tag, wherein the heavy chain comprises a sequence selected from the group consisting of SEQ ID NOs:224-235 and 1030-1065;

(b) the antibody comprises a light chain comprising a light chain sequence selected from the group consisting of SEQ ID NOs:236-247 and 1000-1022 and/or a heavy chain comprising a heavy chain sequence selected from the group consisting of SEQ ID NOs:1070-1117;

(c) the antibody comprises a light chain comprising SEQ ID NO:236 and/or a heavy chain comprising SEQ ID NO:224;

(d) the antibody comprises a light chain comprising SEQ ID NO:237 and/or a heavy chain comprising SEQ ID NO:225;

(e) the antibody comprises a light chain comprising SEQ ID NO:238 and/or a heavy chain comprising SEQ ID NO:226;

(f) the antibody comprises a light chain comprising SEQ ID NO:239 and/or a heavy chain comprising SEQ ID NO:227;

(g) the antibody comprises a light chain comprising SEQ ID NO:240 and/or a heavy chain comprising SEQ ID NO:228;

(h) the antibody comprises a light chain comprising SEQ ID NO:241 and/or a heavy chain comprising SEQ ID NO:229;

(i) the antibody comprises a light chain comprising SEQ ID NO:242 and/or a heavy chain comprising SEQ ID NO:230;

(j) the antibody comprises a light chain comprising SEQ ID NO:243 and/or a heavy chain comprising SEQ ID NO:231;

(k) the antibody comprises a light chain comprising SEQ ID NO:244 and/or a heavy chain comprising SEQ ID NO:232;

(l) the antibody comprises a light chain comprising SEQ ID NO:245 and/or a heavy chain comprising SEQ ID NO:233;

(m) the antibody comprises a light chain comprising SEQ ID NO:246 and/or a heavy chain comprising SEQ ID NO:234;

(n) the antibody comprises a light chain comprising SEQ ID NO:247 and/or a heavy chain comprising SEQ ID NO:235;

(o) the antibody comprises a light chain comprising SEQ ID NO:1000 and/or a heavy chain comprising SEQ ID NO:1030;
(p) the antibody comprises a light chain comprising SEQ ID NO:1001 and/or a heavy chain comprising SEQ ID NO:1031;
(q) the antibody comprises a light chain comprising SEQ ID NO:1002 and/or a heavy chain comprising SEQ ID NO:1032;
(r) the antibody comprises a light chain comprising SEQ ID NO:1003 and/or a heavy chain comprising SEQ ID NO:1033;
(s) the antibody comprises a light chain comprising SEQ ID NO:1004 and/or a heavy chain comprising SEQ ID NO:1034;
(t) the antibody comprises a light chain comprising SEQ ID NO:1005 and/or a heavy chain comprising SEQ ID NO:1035;
(u) the antibody comprises a light chain comprising SEQ ID NO:1006 and/or a heavy chain comprising SEQ ID NO:1036;
(v) antibody comprises a light chain comprising SEQ ID NO:1007 and/or a heavy chain comprising SEQ ID NO:1037;
(w) the antibody comprises a light chain comprising SEQ ID NO:1008 and/or a heavy chain comprising SEQ ID NO:1038;
(x) the antibody comprises a light chain comprising SEQ ID NO:1009 and/or a heavy chain comprising SEQ ID NO:1039;
(y) the antibody comprises a light chain comprising SEQ ID NO:1010 and/or a heavy chain comprising SEQ ID NO:1040;
(z) the antibody comprises a light chain comprising SEQ ID NO:1011 and/or a heavy chain comprising SEQ ID NO:1041;
(aa) the antibody comprises a light chain comprising SEQ ID NO:1012 and/or a heavy chain comprising SEQ ID NO:1042;
(bb) the antibody comprises a light chain comprising SEQ ID NO:1013 and/or a heavy chain comprising SEQ ID NO:1043;
(cc) the antibody comprises a light chain comprising SEQ ID NO:1014 and/or a heavy chain comprising SEQ ID NO:1044;
(dd) the antibody comprises a light chain comprising SEQ ID NO:1015 and/or a heavy chain comprising SEQ ID NO:1045;
(ee) the antibody comprises a light chain comprising SEQ ID NO:1016 and/or a heavy chain comprising SEQ ID NO:1046;

(ff) the antibody comprises a light chain comprising SEQ ID NO:1017 and/or a heavy chain comprising SEQ ID NO:1047;
(gg) the antibody comprises a light chain comprising SEQ ID NO:1018 and/or a heavy chain comprising SEQ ID NO:1048;
(hh) the antibody comprises a light chain comprising SEQ ID NO:1019 and/or a heavy chain comprising SEQ ID NO:1049;
(ii) the antibody comprises a light chain comprising SEQ ID NO:1020 and/or a heavy chain comprising SEQ ID NO:1050;
(jj) the antibody comprises a light chain comprising SEQ ID NO:1021 and/or a heavy chain comprising SEQ ID NO:1051;
(kk) the antibody comprises a light chain comprising SEQ ID NO:1022 and/or a heavy chain comprising SEQ ID NO:1052;
(ll) the antibody comprises a light chain comprising SEQ ID NO:236 and/or a heavy chain comprising SEQ ID NO:1053;
(mm) the antibody comprises a light chain comprising SEQ ID NO:242 and/or a heavy chain comprising SEQ ID NO:1054;
(nn) the antibody comprises a light chain comprising SEQ ID NO:243 and/or a heavy chain comprising SEQ ID NO:1055;
(oo) the antibody comprises a light chain comprising SEQ ID NO:245 and/or a heavy chain comprising SEQ ID NO:1056;
(pp) the antibody comprises a light chain comprising SEQ ID NO:1007 and/or a heavy chain comprising SEQ ID NO:1057;
(qq) the antibody comprises a light chain comprising SEQ ID NO:1008 and/or a heavy chain comprising SEQ ID NO:1058;
(rr) the antibody comprises a light chain comprising SEQ ID NO:1012 and/or a heavy chain comprising SEQ ID NO:1059;
(ss) the antibody comprises a light chain comprising SEQ ID NO:1017 and/or a heavy chain comprising SEQ ID NO:1060;
(tt) the antibody comprises a light chain comprising SEQ ID NO:1018 and/or a heavy chain comprising SEQ ID NO:1061;
(uu) the antibody comprises a light chain comprising SEQ ID NO:1019 and/or a heavy chain comprising SEQ ID NO:1062;
(vv) the antibody comprises a light chain comprising SEQ ID NO:1020 and/or a heavy chain comprising SEQ ID NO:1063;

(ww) the antibody comprises a light chain comprising SEQ ID NO:1021 and/or a heavy chain comprising SEQ ID NO:1064;
(xx) the antibody comprises a light chain comprising SEQ ID NO:1022 and/or a heavy chain comprising SEQ ID NO:1065;
(yy) the antibody comprises a light chain comprising SEQ ID NO:236 and/or a heavy chain comprising SEQ ID NO:1070;
(zz) the antibody comprises a light chain comprising SEQ ID NO:237 and/or a heavy chain comprising SEQ ID NO:1071;
(aaa) the antibody comprises a light chain comprising SEQ ID NO:238 and/or a heavy chain comprising SEQ ID NO:1072;
(bbb) the antibody comprises a light chain comprising SEQ ID NO:239 and/or a heavy chain comprising SEQ ID NO:1073;
(ccc) the antibody comprises a light chain comprising SEQ ID NO:240 and/or a heavy chain comprising SEQ ID NO:1074;
(ddd) the antibody comprises a light chain comprising SEQ ID NO:241 and/or a heavy chain comprising SEQ ID NO:1075;
(eee) the antibody comprises a light chain comprising SEQ ID NO:242 and/or a heavy chain comprising SEQ ID NO:1076;
(fff) the antibody comprises a light chain comprising SEQ ID NO:243 and/or a heavy chain comprising SEQ ID NO:1077;
(ggg) the antibody comprises a light chain comprising SEQ ID NO:244 and/or a heavy chain comprising SEQ ID NO:1078;
(hhh) the antibody comprises a light chain comprising SEQ ID NO:245 and/or a heavy chain comprising SEQ ID NO:1079;
(iii) the antibody comprises a light chain comprising SEQ ID NO:246 and/or a heavy chain comprising SEQ ID NO:1080;
(jjj) the antibody comprises a light chain comprising SEQ ID NO:247 and/or a heavy chain comprising SEQ ID NO:1081;
(kkk) the antibody comprises a light chain comprising SEQ ID NO:1000 and/or a heavy chain comprising SEQ ID NO:1082;
(lll) the antibody comprises a light chain comprising SEQ ID NO:1001 and/or a heavy chain comprising SEQ ID NO:1083;
(mmm) the antibody comprises a light chain comprising SEQ ID NO:1002 and/or a heavy chain comprising SEQ ID NO:1084;

(nnn) the antibody comprises a light chain comprising SEQ ID NO:1003 and/or a heavy chain comprising SEQ ID NO:1085;
(ooo) the antibody comprises a light chain comprising SEQ ID NO:1004 and/or a heavy chain comprising SEQ ID NO:1086;
(ppp) the antibody comprises a light chain comprising SEQ ID NO:1005 and/or a heavy chain comprising SEQ ID NO:1087;
(qqq) the antibody comprises a light chain comprising SEQ ID NO:1006 and/or a heavy chain comprising SEQ ID NO:1088;
(rrr) the antibody comprises a light chain comprising SEQ ID NO:1007 and/or a heavy chain comprising SEQ ID NO:1089;
(sss) the antibody comprises a light chain comprising SEQ ID NO:1008 and/or a heavy chain comprising SEQ ID NO:1090;
(ttt) the antibody comprises a light chain comprising SEQ ID NO:1009 and/or a heavy chain comprising SEQ ID NO:1091;
(uuu) the antibody comprises a light chain comprising SEQ ID NO:1010 and/or a heavy chain comprising SEQ ID NO:1092;
(vvv) the antibody comprises a light chain comprising SEQ ID NO:1011 and/or a heavy chain comprising SEQ ID NO:1093;
(www) the antibody comprises a light chain comprising SEQ ID NO:1012 and/or a heavy chain comprising SEQ ID NO:1094;
(xxx) the antibody comprises a light chain comprising SEQ ID NO:1013 and/or a heavy chain comprising SEQ ID NO:1095;
(yyy) the antibody comprises a light chain comprising SEQ ID NO:1014 and/or a heavy chain comprising SEQ ID NO:1096;
(zzz) the antibody comprises a light chain comprising SEQ ID NO:1015 and/or a heavy chain comprising SEQ ID NO:1097;
(aaaa) the antibody comprises a light chain comprising SEQ ID NO:1016 and/or a heavy chain comprising SEQ ID NO:1098;
(bbbb) the antibody comprises a light chain comprising SEQ ID NO:1017 and/or a heavy chain comprising SEQ ID NO:1099;
(cccc) the antibody comprises a light chain comprising SEQ ID NO:1018 and/or a heavy chain comprising SEQ ID NO:1100;
(dddd) the antibody comprises a light chain comprising SEQ ID NO:1019 and/or a heavy chain comprising SEQ ID NO:1101;

(eeee) the antibody comprises a light chain comprising SEQ ID NO:1020 and/or a heavy chain comprising SEQ ID NO:1102;
(ffff) the antibody comprises a light chain comprising SEQ ID NO:1021 and/or a heavy chain comprising SEQ ID NO:1103;
(gggg) the antibody comprises a light chain comprising SEQ ID NO:1022 and/or a heavy chain comprising SEQ ID NO:1104;
(hhhh) the antibody comprises a light chain comprising SEQ ID NO:236 and/or a heavy chain comprising SEQ ID NO:1105;
(iiii) the antibody comprises a light chain comprising SEQ ID NO:242 and/or a heavy chain comprising SEQ ID NO:1106;
(jjjj) the antibody comprises a light chain comprising SEQ ID NO:243 and/or a heavy chain comprising SEQ ID NO:1107;
(kkkk) the antibody comprises a light chain comprising SEQ ID NO:245 and/or a heavy chain comprising SEQ ID NO:1108;
(llll) the antibody comprises a light chain comprising SEQ ID NO:1007 and/or a heavy chain comprising SEQ ID NO:1109;
(mmmm) the antibody comprises a light chain comprising SEQ ID NO:1008 and/or a heavy chain comprising SEQ ID NO:1110;
(nnnn) the antibody comprises a light chain comprising SEQ ID NO:1012 and/or a heavy chain comprising SEQ ID NO:1111;
(oooo) the antibody comprises a light chain comprising SEQ ID NO:1017 and/or a heavy chain comprising SEQ ID NO:1112;
(pppp) the antibody comprises a light chain comprising SEQ ID NO:1018 and/or a heavy chain comprising SEQ ID NO:1113;
(qqqq) the antibody comprises a light chain comprising SEQ ID NO:1019 and/or a heavy chain comprising SEQ ID NO:1114;
(rrrr) the antibody comprises a light chain comprising SEQ ID NO:1020 and/or a heavy chain comprising SEQ ID NO:1115;
(ssss) the antibody comprises a light chain comprising SEQ ID NO:1021 and/or a heavy chain comprising SEQ ID NO:1116; or
(tttt) the antibody comprises a light chain comprising SEQ ID NO:1022 and/or a heavy chain comprising SEQ ID NO:1117.

30. The antibody of any one of claims 23-29, wherein the antibody is a bispecific or multispecific antibody that comprises at least a second VL domain and a second VH domain, wherein the second VL domain and second VH domain specifically bind a different target than human nectin-4.

31. A conjugate comprising the antibody of any one of claims 23-30 conjugated to an agent, wherein the agent is a label,
a cytotoxic agent, or
a moiety that modulates the immune system.

32. A pharmaceutical composition comprising the conjugate of any one of claims 1-22 and 31 or the antibody of any one of claims 23-30, and a pharmaceutically acceptable carrier.

33. The conjugate of claim 2, wherein the antibody comprises a heavy chain variable region (VH) domain and a light chain variable region (VL) domain, wherein the VH domain comprises CDR-H1, CDR-H2, and CDR-H3 and the VL domain comprises CDR-L1, CDR-L2, and CDR-L3, and

(a) wherein CDR-H1 comprises the sequence of SEQ ID NO:275, CDR-H2 comprises the sequence of SEQ ID NO:276, CDR-H3 comprises the sequence of SEQ ID NO:277, CDR-L1 comprises the sequence of SEQ ID NO:272, CDR-L2 comprises the sequence of SEQ ID NO:273, and CDR-L3 comprises the sequence of SEQ ID NO:274; or

(b) wherein CDR-H1 comprises the sequence of SEQ ID NO:401, CDR-H2 comprises the sequence of SEQ ID NO:402, CDR-H3 comprises the sequence of SEQ ID NO:403, CDR-L1 comprises the sequence of SEQ ID NO:398, CDR-L2 comprises the sequence of SEQ ID NO:399, and CDR-L3 comprises the sequence of SEQ ID NO:400; or

(c) CDR-H1 comprises the sequence of SEQ ID NO:679, CDR-H2 comprises the sequence of SEQ ID NO:680, CDR-H3 comprises the sequence of SEQ ID NO:681, CDR-L1 comprises the sequence of SEQ ID NO:676, CDR-L2 comprises the sequence of SEQ ID NO:677, and CDR-L3 comprises the sequence of SEQ ID NO:678.

34. The conjugate of claim 1 or claim 2, wherein the antibody comprises: (a) a heavy chain variable region (VH) domain comprising SEQ ID NO: 935 and a light chain variable region (VL) domain comprising SEQ ID NO: 934; (b) a heavy chain comprising a heavy chain sequence and a Q-tag, wherein the heavy chain comprises SEQ ID NO: 1047, and a light chain comprising SEQ ID NO: 1017; (c) a heavy chain comprising a heavy chain sequence and a Q-tag, wherein the heavy chain comprises SEQ ID NO: 1060 and a light chain comprising SEQ ID NO: 1017; (d) a heavy chain comprising SEQ ID NO:1099 and

a light chain comprising SEQ ID NO:1017; or (e) a heavy chain comprising SEQ ID NO:1112 and a light chain comprising SEQ ID NO:1017.

35. The conjugate of claim 1 or 2, wherein the antibody comprises (a) a heavy chain variable region (VH) domain comprising SEQ ID NO: 937 and a light chain variable region (VL) domain comprising SEQ ID NO: 936; (b) a heavy chain comprising a heavy chain sequence and a Q-tag, wherein the heavy chain comprises SEQ ID NO: 1048, and a light chain comprising SEQ ID NO:1018; (c) a heavy chain comprising a heavy chain sequence and a Q-tag, wherein the heavy chain comprises SEQ ID NO: 1061 and a light chain comprising SEQ ID NO:1018; (d) a heavy chain comprising SEQ ID NO:1100 and a light chain comprising SEQ ID NO:1018; or (e) a heavy chain comprising SEQ ID NO:1113 and a light chain comprising SEQ ID NO:1018.

36. The conjugate of claim 1 or 2, wherein the antibody comprises (a) a heavy chain variable region (VH) domain comprising SEQ ID NO: 939 and a light chain variable region (VL) domain comprising SEQ ID NO: 938; (b) a heavy chain comprising a heavy chain sequence and a Q-tag, wherein the heavy chain comprises SEQ ID NO: 1049, and a light chain comprising SEQ ID NO: 1019; (c) a heavy chain comprising a heavy chain sequence and a Q-tag, wherein the heavy chain comprises SEQ ID NO: 1062 and a light chain comprising SEQ ID NO: 1019; (d) a heavy chain comprising SEQ ID NO:1101 and a light chain comprising SEQ ID NO:1019; or (e) a heavy chain comprising SEQ ID NO:1114 and a light chain comprising SEQ ID NO:1019.

37. The conjugate of any one of claims 34-36, wherein at least one or at least two of the heavy chains of the antibody is/are non-fucosylated.

38. A pharmaceutical composition comprising the conjugate of any one of claims 33-37 and a pharmaceutically acceptable carrier.

39. Use of the conjugate according to any one of claims 1-22, 31, and 33-37, the antibody according to any one of claims 23-30, or the pharmaceutical composition of claim 32 or claim 38, in the manufacture of a medicament for treating cancer in an individual.

40. The use of claim 39, wherein at least one additional cancer therapeutic is to be administered.

41. The use of claim 39 or claim 40, wherein the cancer is esophageal cancer, stomach cancer, breast cancer, ovarian cancer, lung cancer, pancreatic adenocarcinoma, colon carcinoma, bladder cancer, cervical cancer, thyroid cancer, uterine cancer, rectal cancer, or gallbladder cancer.

42. The use of claim 40 or claim 41, wherein additional cancer therapeutic comprises a PD-1 inhibitor or a PD-L1 inhibitor.

43. A nucleic acid encoding the antibody of the conjugate of any one of claims 1-22, 31, and 33-37, or the antibody of any one of claims 23-30.