**Supplementary file 1. Genetic characteristics of isolated antibodies.** Sequences were analyzed using the IMGT database. Lambda-antibodies are listed over a yellow background and kappa-antibodies over a blue background. V region identity is indicated as a percentage of nucleotides. Antibodies that differ from one another solely through their light chain are indicated using dashed lines (B1C5L/K, B1C8L/K and B1D3L/K).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Heavy Chain | | | | Light Chain | | | |
| mAb | V gene | J gene | CDR3 length | V region identity % | V gene | J gene | CDR3 length | V region identity % |
| B1C5L | IGHV1-8\*01 | IGHJ5\*02 | 16 | 93.06% | IGLV1-44\*01 | IGLJ3\*02 | 11 | 95.44% |
| B1C5K | IGHV1-8\*01 | IGHJ5\*02 | 16 | 93.06% | IGKV1-5\*03 | IGKJ2\*02 | 9 | 89.73% |
| B2C10L | IGHV1-2\*02 | IGHJ5\*02 | 11 | 93.09% | IGLV2-11\*01 | IGLJ1\*01 | 9 | 96.53% |
| B2E9L | IGHV3-33\*01 | IGHJ4\*02 | 17 | 96.53% | IGLV1-51\*02 | IGLJ2\*01 | 10 | 95.79% |
| B1C8L | IGHV4-61\*02 | IGHJ5\*02 | 11 | 80.70% | IGLV1-51\*02 | IGLJ2\*01 | 11 | 86.67% |
| B1C8K | IGHV4-61\*02 | IGHJ5\*02 | 11 | 80.70% | IGKV3-15\*01 | IGKJ1\*01 | 10 | 96.42% |
| B1D3L | IGHV1-18\*01 | IGHJ6\*03 F | 21 | 91.67% | IGLV1-47\*01 | IGLJ3\*02 | 10 | 88.41% |
| B1D3K | IGHV1-18\*01 | IGHJ6\*03 F | 21 | 91.67% | IGKV2D-29\*01 | IGKJ1\*01 | 9 | 97.62% |
| B1F9K | IGHV4-4\*07 | IGHJ2\*01 | 14 | 58.22% | IGKV1-12\*01 | IGKJ3\*01 | 9 | 100% |
| B1E7K | IGHV3-33\*01 | IGHJ4\*02 | 17 | 95.14% | IGKV3-11\*01 | IGKJ2\*04 | 10 | 97.47% |
| B1C3L | IGHV4-4\*07 | IGHJ5\*02 | 17 | 100.00% | IGLV2-14\*01 | IGLJ2\*01 | 10 | 90% |
| B2D10L | IGHV4-34\*03 | IGHJ5\*02 | 22 | 85.61% | IGLV3-1\*01 | IGLJ2\*01 | 10 | 96.06% |
| B2F7L | IGHV3-74\*03 | IGHJ4\*02 | 19 | 85.42% | IGLV2-8\*01 | IGLJ1\*01 | 10 | 100% |
| B1E11K | IGHV3-7\*01 | IGHJ4\*01 | 9 | 90.74% | IGKV3-20\*01 | IGKJ2\*04 | 9 | 90.20% |