**Additional file 2**

**Crystal structures**

|  |  |
| --- | --- |
| **Allele** | **PDB** |
| HLA-A\*0101 | 4NQV |
| HLA-A\*0201 | 3MRE |
| HLA-A\*0201 | 3MRG |
| HLA-A\*0301 | 3RL1 |
| HLA-A\*1101 | 1X7Q |
| HLA-A\*2402 | 1P7Q |
| HLA-A\*6801 | 4HWZ |
| HLA-B\*0702 | 4U1H |
| HLA-B\*0801 | 4QRS |
| HLA-B\*2705 | 2A83 |
| HLA-B\*3501 | 2CIK |
| HLA-B\*4403 | 1N2R |
| HLA-B\*5101 | 1E27 |
| HLA-DRB1\*0101 | 1T5W |
| HLA-DRB1\*0301 | 1A6A |
| HLA-DRB1\*0401 | 1J8H |
| HLA-DRB1\*1501 | 1YYM |