

Supplementary Table S1. The binding affinity of ABL503 on human and monkey 4-1BB and PD-L1

| Analyte | Species | K_D (M) (Mean±SD) | Rmax(RU) | Chi ² (RU ²) (Min~Max) |
|---------|------------------------|---------------------------------|------------|--------------------------------------------------|
| 4-1BB | Human | (1.380±0.137)×10 ⁻⁸ | 33.38±0.42 | 0.116~0.455 |
| | Monkey (cynomolgus) | (0.759±0.138)×10 ⁻⁸ | 40.47±1.76 | 0.112~0.183 |
| PD-L1 | Human | (3.072±0.088) ×10 ⁻⁹ | 45.57±0.24 | 0.419~1.070 |
| | Monkey (cynomolgus) | (6.016±0.148)×10 ⁻⁹ | 44.70±0.44 | 0.288~0.379 |

Supplementary Table S2. The binding affinity of ABL503 to Fcγ receptors

| Analyte | Ligand | K_D (M) |
|-----------------|------------|--------------------|
| FcRn (pH 6.0) | ABL503 | 2.95E-06 |
| | Rituximab* | 2.42E-06 |
| FcγRI | ABL503 | 4.59E-07 |
| | Rituximab | 7.60E-10 |
| FcγRIIa(H167) | ABL503 | No or weak binding |
| | Rituximab | 3.44E-06 |
| FcγRIIa (R167) | ABL503 | No or weak binding |
| | Rituximab | 6.48E-06 |
| FcγRIIb | ABL503 | No or weak binding |
| | Rituximab | 1.33E-05 |
| FcγRIIIa (F176) | ABL503 | No or weak binding |
| | Rituximab | 1.30E-06 |
| FcγRIIIa (V176) | ABL503 | No or weak binding |
| | Rituximab | 2.28E-07 |
| FcγRIIIb | ABL503 | No or weak binding |
| | Rituximab | 4.92E-06 |

* Rituximab having wildtype IgG1 backbone was used as a positive control