**Supplementary File 1.** *K*d values of interactions between individual SH2 of SHP1/SHP2 and phosphorylated ITIM/ITSM of PD-1/BTLA; mean ± s.d. (n = 3).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *K*d (M) | PD-1-pITIM | PD-1-pITSM | BTLA-pITIM | BTLA-pITSM |
| SHP1-nSH2 | 0.27 ± 0.1 | 0.083 ± 0.020 | 0.064 ± 0.012 | n.d. |
| SHP1-cSH2 | n.d. | 1.7 ± 1.4 | 1.8 ± 0.20 | 0.86 ± 0.31 |
| SHP2-nSH2 | 0.38 ± 0.10 | 0.14 ± 0.049 | 0.34 ± 0.082 | 2.1 ± 1.1 |
| SHP2-cSH2 | 1.4 ± 0.57 | 0.10 ± 0.029 | 1.1 ± 0.54 | 1.1 ± 0.19 |

n.d.: not detected