**Supplementary File 3.** Table summarizing ∆G of individual SH2:ITIM/ITSM interactions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ∆G (kJ/mol)a | SHP1-nSH2 | SHP1-cSH2 | SHP2-nSH2 | SHP2-cSH2 |
| PD-1-pITIM | -37.5 | 0.0 | -36.6 | -33.4 |
| PD-1-pITSM | -40.4 | -32.9 | -39.1 | -40.0 |
| BTLA-pITIM | -41.1 | -32.8 | -36.9 | -34.0 |
| BTLA-pITSM | 0.0 | -34.6 | -32.4 | -34.0 |

a: ∆G = RT\*ln (Kd), showing the change of Gibbs free energy;

T = 298.15 K, R is molar gas constant, R = 8.314 × 10-3 kJ/K/M