



**Figure S1** Total T-cells PSI analysis. (A) PSI comparison of healthy donors and baseline untreated NSCLC patients. The PSI between the healthy donors and the baseline untreated NSCLC patient group was compared for CD4<sup>+</sup> and CD8<sup>+</sup> T cells combined (healthy *vs.* responder, P=0.59; healthy *vs.* NSCLC, P=0.56; healthy *vs.* non-responder, P=0.69). Statistical analysis was performed with a Wilcoxon-ranked test. (B) Comparing the ΔPSI after two cycles of ICI treatment in responders *vs.* non-responders. The ΔPSI between responders and non-responders were compared for CD4<sup>+</sup> and CD8<sup>+</sup> T cells combined (P=0.19). PSI, polyfunctional strength index; ΔPSI, change in PSI; *ALK*, anaplastic lymphoma kinase; ALK-i, ALK inhibitor; NSCLC, non-small cell lung cancer; ns, not significant (P>0.05).