



Fig S1A (Position 1-4). X-scan assay identified the tolerable amino acid replacement at each position of AFP₁₅₈ epitope that are able to activate TCR-Ts. X-Peptides with replacement of each amino acid residue with every other 19 amino acids were used to activate TCR-Ts by measuring the IFN γ in the co-culture media. The amount of IFN γ produced by TCR-Ts after stimulation with mutated epitope was compared to that from AFP₁₅₈ peptide. The ratios was presented.