



**Supplementary file 1: Figure S1.** Production of two forms of scFv6-9-1 in fusion with thioredoxin. Schematic diagram of the expression cassettes (A). Expression and purification of TVHVL and TVLVH (B). Total or purified protein extracts from Origami (DE3) strain of *Escherichia coli* were subjected to 10% SDS-PAGE and stained with Coomassie Brilliant Blue. M, protein molecular weight marker (kDa), line 1 and 4, proteins extracted before IPTG induction; line 2 and 5, proteins extracted after IPTG induction; line 3 and 6, partially purified recombinant TscFv with C-terminal tags. TVHVL and TVLVH have different order of heavy (VH) and light (VL) chains separated by the linker.