



**Figure S1.** Hierarchical clustering of 293 *Ae. tauschii* accessions showing the classification of TauL1, TauL2, and TauL3 based on high-quality SNP markers derived from 5,880 DArTseq markers. Values at branches are AU values (upper, red), BP values (down, blue), and cluster labels (medium, gray). Ssp. *strangulata* is indicated, and others belongs to ssp. *tauschii*. UN, unknown lineages or country. Origin of accessions: SYR, Syria; TUR, Turkey; GEO, Georgia; ARM, Armenia; AZE, Azerbaijan; DAG, Dagestan; IRN, Iran; TKM, Turkmenistan; AFG, Afghanistan; PAK, Pakistan; TAJ, Tajikistan; UZB, Uzbekistan; KGZ, Kyrgyzstan; KAS, Kazakhstan and CHN, China. The two black circles indicate where these two trees are connected.