





**Unrooted MP tree for PBSs linkers in 25 cyanobacteria and unrooted NJ trees for 16s rDNA and FNR in 21 cyanobacteria**

(A). Colored branches and symbols indicate different sources PBSs-associated linker genes (sky blue: APC-associated core linker; blue: PBSs rod linker, red: clear PE-associated rod linker, purple: PBSs rod-core linker, green: PBSs core-membrane linker and yellow: C-PE class II gamma chain). (B). Colored lines represent different correspondence from their 16s rDNA to FNR in the tree topology.