

A binary vector is a standard tool in the transformation of higher plants mediated by *Agrobacterium tumefaciens*. A super-binary vector carries additional virulence genes from a Ti plasmid, and exhibits very high frequency of transformation, which is valuable for recalcitrant plants such as cereals. It is composed of the borders of T-DNA, multiple cloning sites, replication functions for *Escherichia coli* and *A. tumefaciens*, selectable marker genes, reporter genes, and other accessory elements that can improve the efficiency of and/or give further capability to the system.