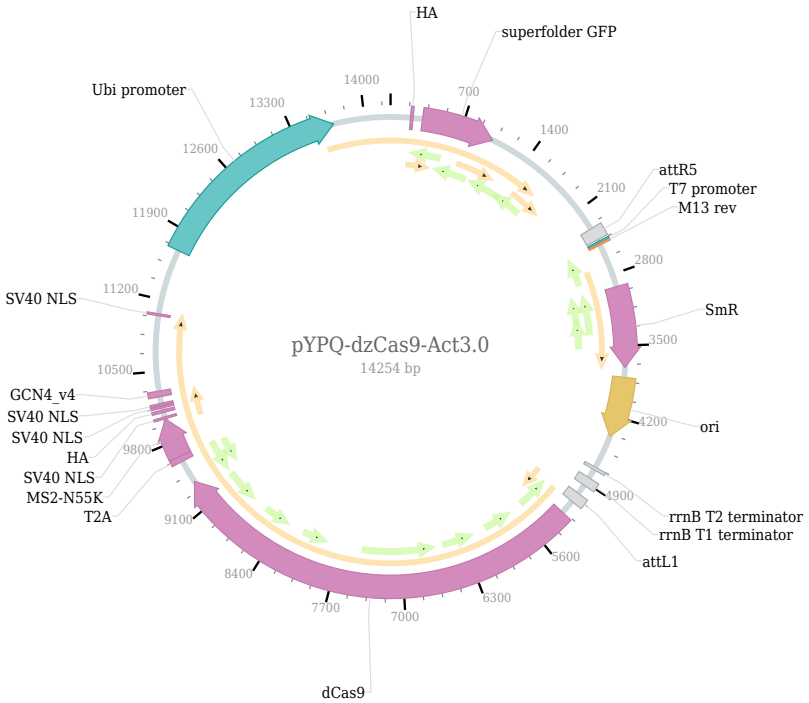
pYPQ-dzCas9-Act3.0

Vector ID	V017159
Antibiotic Resistance	Spectinomycin
Length	14254 bp
Vector Type	Gene knockout
Host	Plants

Product Information

Replication Origin	ori
Promoter	Ubi
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	pYPQ-dzCas9-Act3.0 is a core entry vector for the plant CRISPR–Act3.0 transcriptional activation system. It carries maize codon-optimized dzCas9-VP64, paired with MS2-SunTag and scFv-sfGFP-2xTAD activator modules for robust gene upregulation. Unlike dpcoCas9 versions, this plasmid avoids DNA rearrangement in Agrobacterium tumefaciens during plant transformation. It delivers activation potency comparable to dpcoCas9-Act3.0 and functions well in rice, Arabidopsis and tomato. It is compatible with tRNA-gR2.0 multiplex sgRNA cassettes for simultaneous multi-gene activation in metabolic engineering.

Vector Map



Plasmid Resuspension Protocol

1. Centrifuge at 5,000×g for 5 min.
2. Carefully open the tube and add sterile water to dissolve the DNA: add 20 µl for 5 µg plasmid, and 100 µl for 100 µg plasmid.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin to concentrate the liquid at the bottom. Speed is less than 5000×g.
5. Store the plasmid at -20 ℃.