

SUPPLEMENTARY TABLES

Table S1. Segregation of male fertility sterility in the T1 progeny of wtRfo and Rfo Δ transgenic plants

Cross	Pollen Production	
	Yes	No
Rfo Δ -3 x Westar (maintainer)	20	0
Rfo Δ -10 x Westar	20	0
Rfo Δ -15 x Westar	20	0
Rfo Δ -22 x Westar	12	8
wtRfo x wtRfo	5	1

Table S2. Primers used for building genetic constructs.

Primer designation	Sequence, 5' to 3'	Construct number	Sequence: Location*
Sal1PF	GAGAGTCGACGATTATTAAGATTTAATATAAATA	1	Rfo: -1479 to -1456
BRg26Eco	CTCTGAATCTGGAAGGTGTCCTCTTTAGTTC	1, 5, 6, 7, 8	Rfo: +2468 to +2443
Pf	GAGAGGGCCCGTCGACGATTATTAAGATTTAATATAAATA	2	Rfo: -1479 to -1456
Pr	CTCTCTCGAGTTTATTTTTGTTTCGCCCTAAATTTTG	2	Rfo: -1 to -26
Fg26Xhostart	CTCTCTCGAGATGTTGGCTAGGGTTTGTGG	3, 6, 7, 8	Rfo: +1 to +20
Bforwardg26	GCCTTGGATTTTTTTCATCAAATGTGTAGGCCCAATGTCGTAACCTTC	3	Rfo: +502 to +526** +539 to +561
reverseg26	GAAGGTTACGACATTGGGCCTACACATTTGATGAAAAAATCCAAGGC	3	Rfo: +561 to +539** +526 to +502
DFg24Xhostart	CTCTCTCGAGATGTTGGCTAGGGTTTGCAGATTCG	4, 5	PPR-A: +1 to +25
DRg24	GAACGTTAGGACATCTGGTCTACATGTCGTTTCAAAAATTGATGAAACAAATCCAAGGC	4	PPR-A: +555 to +508
EFg24	GCCTTGGATTTGTTTCATCAAATTTTGAACGACATGTAGACCAGATGTCCTAACGTTTC	4	PPR-A: +508 to + 555
Rg24Ecostop	CTCTGAATTCGAGTGCAGCTTTCTTTTTTTAAAC	4	PPR-A: +2456 to +2432
g24swapA	GTCAGCATATTGCGGATAGTAAT	5	PPR-A: +1970 to +1948
g2624FswapB	ATTACCATCCGCAATATGCTGAC	5	PPR-A: +1948 to +1970
P3g24g26Reverse	ACCCTCGCGCAAAGACC	6	Rfo: +594 to + 577
P3g2426swapF	GGTCTTTGCCGCGAGGGT	6	Rfo: +577 to +594
g26RUTRA	GAAGAAAATCTTTGATCATTCAGGTATCAGGATACACCAC	7	Rfo: +2210 to +2189** +1953 to +1939
g26FUTRB	TGAATGATCAAAGATTTTCTTC	7	Rfo: +2189 to +2210
Apa1Sal1F02	GAGAGGGCCCGTCGACGCCAAATACAACCCGAACCTAATGG	8	PPR-A: -1125 to -1102
g24RXho1F03	CTCTCTCGAGACTCGAATCTGCAAACCCCTAGCCAACAT	8	PPR-A +22 - +1

*Location relative to the initiation codon in either *Rfo* or *PPR-A*. Sequences designated as extending from a smaller to a larger nucleotide number prime extension in the direction of the 3' UTR; sequences designated as extending from a larger to a smaller nucleotide number prime in the direction of the promoter.

**Primers corresponding to two distinct but nearby sequences were used in the generation of deletion mutations (constructs 3 and 7)