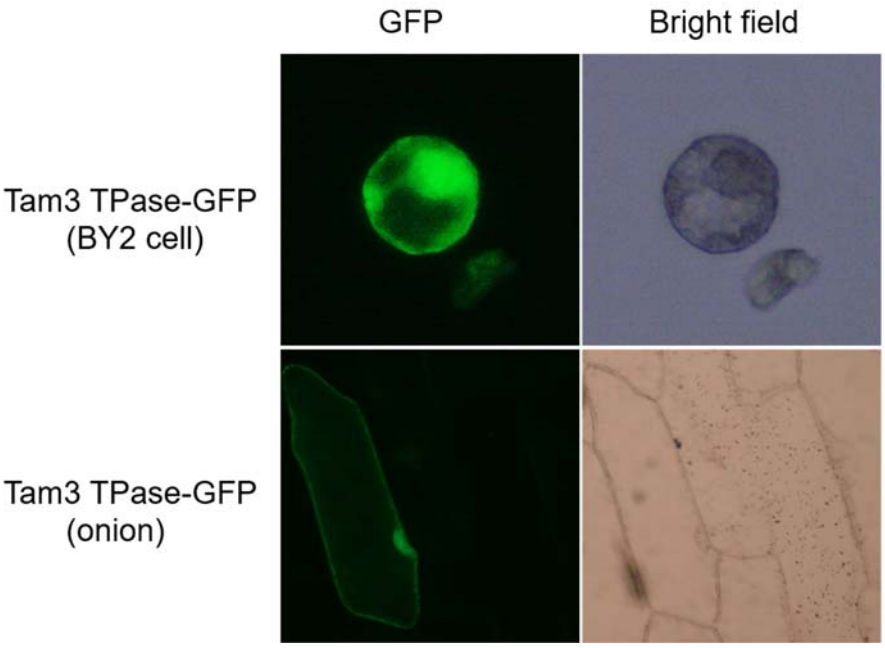
Supplementary Figures

Supplemental Figure S1 Phenotype of Tam3 temporarily inactive *Antirrhinum* Line at 15℃. A, Structure of the *pal* allele from *Antirrhinum majus* line HAM22 and its flower phenotype at 15℃. The transposition of Tam3 happened under low temperature in some *Antirrhinum* petal cells. In this case, Tam3 was removed from the promoter of *pal*. The expression of *pal* was recovered. Hence, the flower showed red spots in the petal. B, The subcellular localization of Tam3 TPase at 15℃ in the protoplast of HAM22. Some of Tam3 TPase can go into the nuclei under low temperatures.



Supplemental Figure S2 Subcellular localization of Tam3 TPase in tobacco BY2 cells and onion epidermis cells. Plasmid DNA was introduced into tobacco BY2 cells and onion epidermal tissues by the PEG-mediated way or the bombardment method, respectively. Then, the tissues were incubated at 25°C for 20 h. In these two plants, most of cells showed GFP signal at both cell membrane and nuclei.

Supplementary Tables

Supplemental Table S1 Measurements of the rate of plasma membrane-located GFP signal of intact- and truncated-Tam3 TPase in protoplasts and petal cells of HAM22.

Subcellular localization of Tam3 TPases using protoplasts of HAM22 (25°C) (numerator: number of cells showing only plasma membrane GFP localization; denominator: total number of cells with GFP)			
	repeat 1	repeat 2	repeat 3
T3TPase	196/200	97/99	77/78
T3TPase∆54	56/56	47/48	57/59
T3TPase∆169	77/78	66/67	99/101
T3TPase∆179	63/66	54/56	76/78
T3TPase∆200	1/71	1/89	1/81
T3TPase∆230	0/58	2/97	2/76
T3TPase∆243	1/46	2/58	3/50
Subcellular localization of Tam3 TPases using petal cells of HAM22 (25°C) (numerator: number of cells showing only plasma membrane GFP localization; denominator: total number of cells with GFP)			
	repeat 1	repeat 2	repeat 3
T3TPase	89/89	52/52	105/105
T3TPase∆54	62/62	58/58	69/69
T3TPase∆169	51/51	54/54	68/68
T3TPase∆179	39/39	38/38	42/42
T3TPase∆200	10/43	2/51	5/26
T3TPase∆230	8/49	0/36	3/39
T3TPase∆243	15/76	16/48	2/46

Supplemental Table S2 Measurements of the rate of plasma membrane-located GFP signal of pA7-(Znf-AmCSBL) and pA7-(Znf-DnaJh1) in protoplasts of HAM22.

Subcellular localization of pA7-(Znf-AmCSBL) and pA7-(Znf-DnaJh1) using protoplasts of HAM22 (25°C) (numerator: number of cells showing only plasma membrane GFP localization; denominator: total number of cells with GFP)			
	repeat 1	repeat 2	repeat 3
pA7-(Znf_BED&AmCSBL)	92/97	120/123	79/82
pA7-(Znf_BED&AmDnaJh1)	48/49	49/51	31/32

Supplemental Table S3 Measurements of the rate of plasma membrane-located GFP signal of intact- and mutated-Tam3 TPase in protoplasts HAM22.

Subcellular localization of Tam3 TPase and its mutant constructs using protoplasts of HAM22 (25°C) (numerator: number of cells showing only plasma membrane GFP localization; denominator: total number of cells with GFP)			
	repeat 1	repeat 2	repeat 3
TPase(wt)	97/100	48/49	38/39
TPase(m1)	36/48	29/43	21/34
TPase(m2)	29/34	56/62	30/33
TPase(m3)	44/54	55/72	48/61
TPase(m4)	84/119	91/128	74/108
TPase(m5)	4/60	5/55	21/80
TPase(m6)	36/42	34/39	33/40
TPase(m7)	19/96	28/112	8/38
TPase(m8)	0/58	3/65	3/75
TPase(m9)	19/98	21/106	19/105
TPase(m10)	1/71	2/82	2/90

Supplemental Table S4 Primers list of plasmid constructions.

primers for subcellular localization of Tam3 TPases	
T3TPase(XhoI)-F	CCGCTCGAGCGGATGGCAAACGAAGAAAACTCAAATC
T3TPase∆55(XhoI)-F	CCGCTCGAGCGGATGGACACGAGCAATATTCA
T3TPase∆170(XhoI)-F	CCGCTCGAGCGGATGGCCTCTACATCAAGACC
T3TPase∆179(XhoI)-F	CCGCTCGAGCGGATGACGAAGAAAGCGACGGTA
T3TPase∆200(XhoI)-F	CCGCTCGAGCGGATGTTACTTTGTCCTACAAG
T3TPase∆231(XhoI)-F	CCGCTCGAGCGGATGGACGCTCCGGATATGCA
T3TPase∆244(XhoI)-F	CCGCTCGAGCGGATGGCACCGTGGAGGTATGACCAAAAT
T3TPase(SpeI)-R	GGACTAGTCCGTGGATGTTTGTAAAATCATATGGC
primers for subcellular localization of *AmCSBL* and *AmDnaJh1*	
AmDnaJh1(XhoI)-F	CCGCTCGAGCGGATGGCCATCATTCCTTGTGGA
AmDnaJh1(SpeI)-R	GGACTAGTCCCCTACTACTGGGAGCCTTC
AmCSBL(XhoI)-F	CCGCTCGAGCGGATGGGTAGTGCTTCATCAATG
AmCSBL(SpeI)-R	GGACTAGTCCGTCAATGGGGACTTCCATC
primers for inserting BED-zinc finger motif into N-terminals of *AmCSBL* and *AmDnaJh1*	
T3TPase∆170(XhoI)-F	CCGCTCGAGCGGATGGCCTCTACATCAAGACC
Znf_BED&AmDnaJh1-F	GACAACCAGACGGTACAATGGCCATCATTCCTTG
Znf_BED&AmDnaJh1-R	CAAGGAATGATGGCCATTGTACCGTCTGGTTGTC
Znf_BED&AmCSBL-F	GACAACCAGACGGTACAATGGGTAGTGCTTCATC
Znf_BED&AmCSBL-R	GATGAAGCACTACCCATTGTACCGTCTGGTTGTC
primers for point mutations	
T3TPase(XhoI)-F	CCGCTCGAGCGGATGGCAAACGAAGAAAACTCAAATC
T3TPase(SpeI)-R	GGACTAGTCCGTGGATGTTTGTAAAATCATATGGC
T3TPase(m1)-F	CTGGGCTCAGCGTTTACTTTGTCCTACAAG
T3TPase(m1)-R	CTTGTAGGACAAAGTAAACGCTGAGCCCAG
T3TPase(m2)-F	CTGGGCTCAGTGTTTACTTCGTCCTACAAG
T3TPase(m2)-R	CTTGTAGGACGAAGTAAACACTGAGCCCAG
T3TPase(m3)-F	GAACACTTACAAGAAATTTGACGGCAAAG
T3TPase(m3)-R	CTTTGCCGTCAAATTTCTTGTAAGTGTTC
T3TPase(m4)-F	CATTTGACGGCAAAGAATAAGAATCGCGAC
T3TPase(m4)-R	GTCGCGATTCTTATTCTTTGCCGTCAAATG
T3TPase(m5)-F	CTGGGCTCAGCGTTTACTTCGTCCTACAAG
T3TPase(m5)-R	CTTGTAGGACGAAGTAAACGCTGAGCCCAG
T3TPase(m6)-F	GAACACTTACAAGAAATTCGACGGCAAAG
T3TPase(m6)-R	CTTTGCCGTCGAATTTCTTGTAAGTGTTC
T3TPase(m7)-F	GAAAGCGACGGTATCGAAATGGTTTTC
T3TPase(m7)-R	GAAAACCATTTCGATACCGTCGCTTTC
T3TPase(m8)-F	TATGGAAATGGTCTTCAAAGGTGAC
T3TPase(m8)-R	GTCACCTTTGAAGACCATTTCCATA
T3TPase(m9)-F	TGAAAGCGACGGCATGGAAATGG
T3TPase(m9)-R	CCATTTCCATGCCGTCGCTTTCA