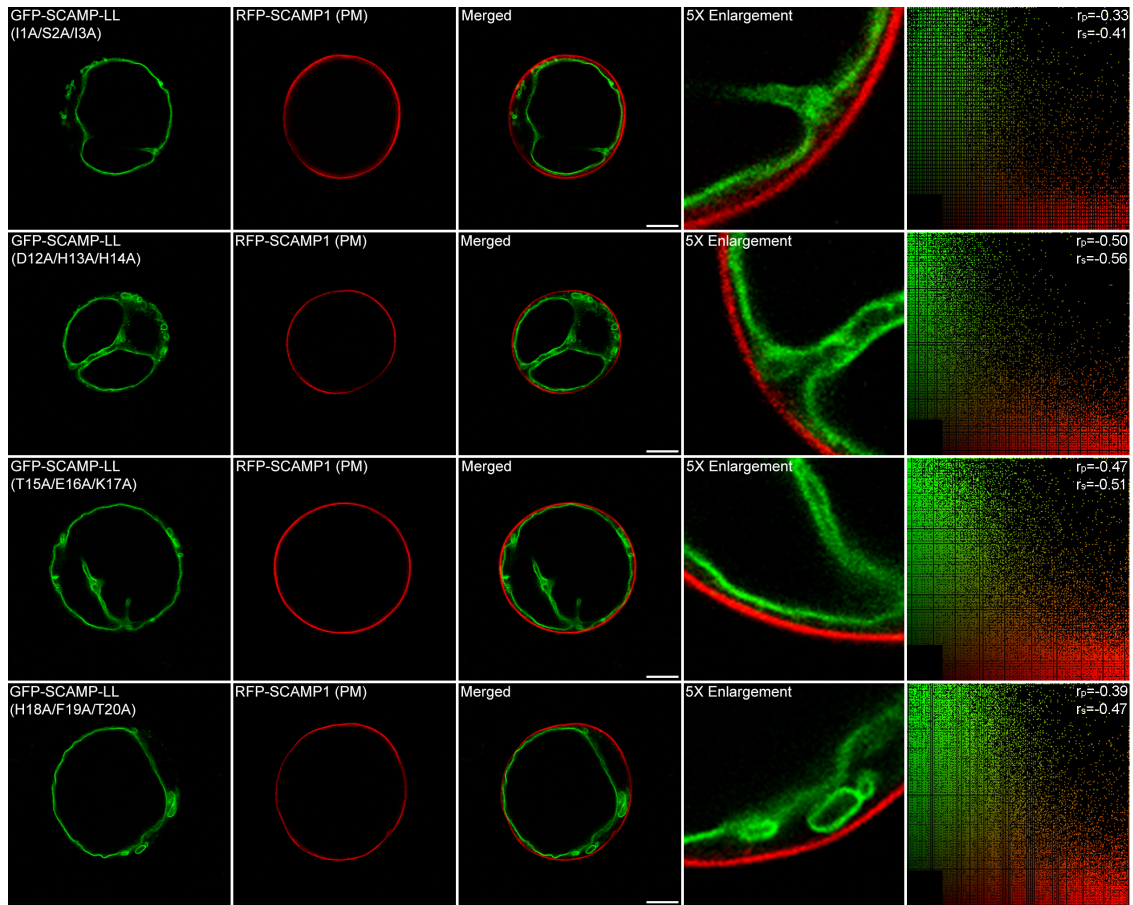Supplemental Figure 1. The N terminal of VIT1 is essential for its trafficking.

(A) The N terminal of VIT1 was deleted and this truncation form was trapped in the ER in *Arabidopsis* protoplasts.

(B) Further truncation constructs of N terminal were generated and transiently expressed in *Arabidopsis* protoplasts. Bar=10 μm.

Supplemental Figure 2. Subcellular localization of GFP-SCAMP1 fused with the mutated N terminal of VIT1.
Fusion constructs were transiently co-expressed with RFP-SCAMP1 in *Arabidopsis* protoplasts. Bar=10 µm.
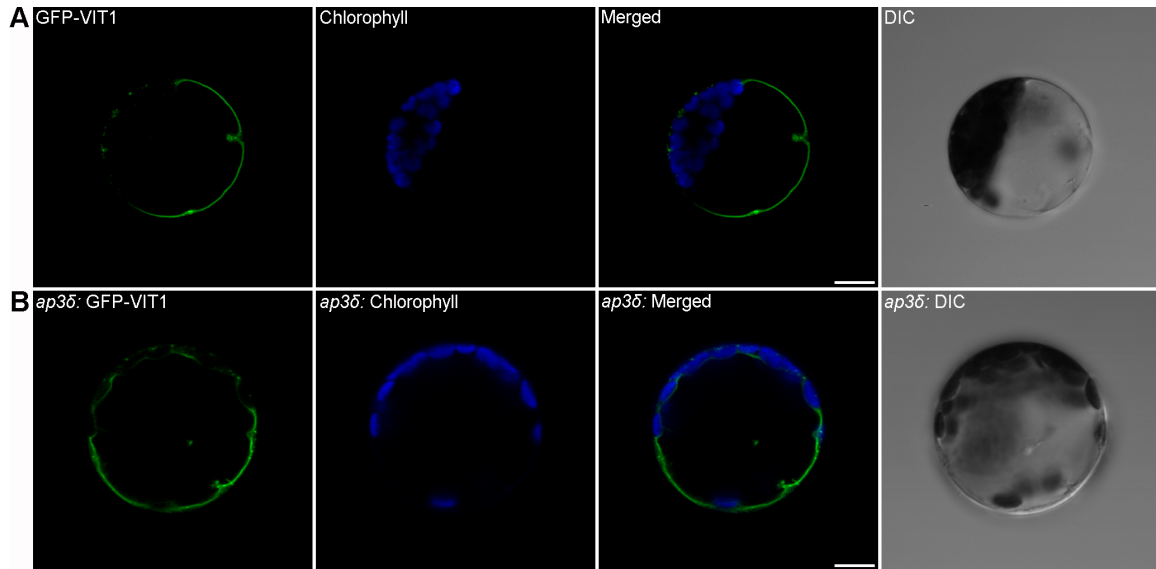
Supplemental Figure 3. Localization of VIT1 was not affected in the *ap3δ* mutant. GFP-VIT1 was transfected into mesophyll protoplasts isolated from leaves of WT (A) and *ap3δ* mutants (B). Bar=10 μm.

Supplemental Table 1. Primers Used in This Study.

GFP-VIT1-Forward	5'- gggTCTAGAATGTCGTCGGAGGAAGATAAG -3'
GFP-VIT1-Reverse	5'- gggGAGCTCCTAATGTTGCACAACTTTAGCC -3'
GFP-VIT1ΔNT-Forward	5'- gggTCTAGAATGATCATCATCGGCGTCTCTGATGGTTTA -3'
GFP-VIT1ΔN6-Forward	5'- gggTCTAGAATGATTACAAGAATCTCTATCGAACCG -3'
GFP-VIT1ΔN13-Forward	5'- gggTCTAGAATGGAACCGGAGAAGCAAACACTTCTCG -3'
GFP-VIT1(I8A/I11A/I13A)	5'- gggTCTAGAATGTCGTCGGAGGAAGATAAGGCTACAAGAGCCTCTGCCGAACCGGA -3'
GFP-VIT1(I8A)	5'- gggTCTAGAATGTCGTCGGAGGAAGATAAGGCTACAAGAATCTCTATCGAACCGGA -3'
GFP-VIT1(I11A/I13A)	5'- gggTCTAGAATGTCGTCGGAGGAAGATAAGATTACAAGAGCCTCTGCCGAACCGGA -3'
GFP-VIT1(E16A/L20A/L21A)	5'- gggTCTAGAATGTCGTCGGAGGAAGATAAGATTACAAGAATCTCTATCGAACCGGCGAAGCAAACAGCTGCCGATCATCACACC -3'
GFP-VIT1(E16A)	5'- gggTCTAGAATGTCGTCGGAGGAAGATAAGATTACAAGAATCTCTATCGAACCGGCGAAGCAAACACTTCTCGATCATCACACC -3'
GFP-VIT1(L20A/L21A)	5'- gggTCTAGAATGTCGTCGGAGGAAGATAAGATTACAAGAATCTCTATCGAACCGGAGAAGCAAACAGCTGCCGATCATCACACC -3'
GFP-SCAMP1-LL	5'- gggCTCGAGTTAGGTGAAGTGTTTCTCGGTGTGATGATCGAGAAGTGTTTGCTTCTCCGGTTCGATAGAGATAAAAGCTGCCCGCATAGC -3'
GFP-SCAMP1-LL(E6A/L10A/L11A)	5'- gggCTCGAGTTAGGTGAAGTGTTTCTCGGTGTGATGATCAGCTGCTGTTTGCTTAGCCGGTTCGATAGAGATAAAAGCTGCCCGCATAGC -3'
GFP-SCAMP1-LL(K7A/Q8A/T9A)	5'- gggCTCGAGTTAGGTGAAGTGTTTCTCGGTGTGATGATCGAGAAGTGCAGCTGCCTCCGGTTCGATAGAGATAAAAGCTGCCCGCATAGC -3'
GFP-SCAMP1-LL(I1A/S2A/I3A)	5'- gggCTCGAGTTAGGTGAAGTGTTTCTCGGTGTGATGATCGAGAAGTGTTTGCTTCTCCGGTTCTGCAGCTGCAAAAGCTGCCCGCATAGCACCCCT -3'
GFP-SCAMP1-LL(D12A/H13A/H14A)	5'- gggCTCGAGTTAGGTGAAGTGTTTCTCGGTTGCAGCTGCGAGAAGTGTTTGCTTCTCCGGTTCGATAGAGATAAAAGCTGCCCGCATAGC -3'
GFP-SCAMP1-LL(T15A/E16A/K17A)	5'- gggCTCGAGTTAGGTGAAGTGTGCAGCTGCGTGATGATCGAGAAGTGTTTGCTTCTCCGGTTCGATAGAGATAAAAGCTGCCCGCATAGC-3'
GFP-SCAMP1-LL(H18A/F19A/T20A)	5'- gggCTCGAGTTATGCAGCTGCTTTCTCGGTGTGATGATCGAGAAGTGTTTGCTTCTCCGGTTCGATAGAGATAAAAGCTGCCCGCATAGC-3'
AP1γ1-YFP-Forward	5'- gggTCTAGAATGAATCCATTCTCTTCCGGCACGCG -3'

AP1γ1-YFP-Reverse	5'- gggGGTACCTAACCCACGTGGGAAATTGTTGATTTG -3'
AP1γ2-YFP-Forward/ AP1γ2-RT-F	5'- gggTCTAGAATGAATCCCTTTTCTTCTGGTACTCG -3'
AP1γ2-YFP-Reverse AP1γ2-RT-R	5'- gggGGTACCCAACCCGCGAGGGAAGTTGCTGACTTG -3'
AP3δ-YFP-Forward	5'- gggGGTACCATGTCGTCGTCTTCCACTTCTATAATGGAC -3'
AP3 δ-YFP-Reverse	5'- gggACTAGTCAAGAGAAAATCTGGAATTATAACTTGTTC -3'
AP1σ1-4HA-Forward	5'- gggGGATCCATGATACATTTCGTGTTACTAGTCAGTCG -3'
AP1σ1-4HA-Reverse	5'- gggCTCGAGGAATTCCTTGGTAGCCTGAGCAATTATATTAC -3'
AP1σ2-4HA -Forward	5'- gggGGATCCACTAGTATGATACATTTTGTGCTTCTAG -3'
AP1σ2-4HA -Reverse	5'- gggCTCGAGGAATTCTCGATTAGTAGCCTGAGCG -3'
AP3σ-4HA -Forward	5'- gggGGATCCATGATTAAGGCAGTGATGATGATG -3'
AP3σ-4HA -Reverse	5'- gggCTCGAGGAATTCACGGCCACGCCACCCGGAAAC -3'
RNAi-AP1γ1-F XhoI	5'- gggCTCGAGTTTCAAATGCAACAATGGACGG -3'
RNAi-AP1γ1-R EcoRI	5'- gggGAATTCTAGGACAGAACAAAGGTAGCTTTGTC -3'
RNAi-AP1γ1-F XbaI	5'- gggTCTAGATTTCAAATGCAACAATGGACGG -3'
RNAi-AP1γ1-R ClaI	5'- gggATCGATTAGGACAGAACAAAGGTAGCTTTGTC -3'
ap1γ2 genotyping-F	5'- TGACAACAATAAGTGCATGCC -3'
ap1γ2 genotyping-R	5'- AAACAATCATGGCCATTGAAG -3'
GFP-INT1-Forward	5'- gggACTAGTATGACATTGACGATCCCAAACG-3'
GFP-INT1-Reverse	5'- gggGGTACCAGATTGAGATCCCTGCTCGAGTAACC-3'