



**Supplemental Figure 3.** Substitution of Gly to Ser did not affect ERMO3/MVP1/GOLD36 function. (a) ERMO3/MVP1/GOLD36 protein fused with tagRFP to its C-terminus was stably expressed in *ermo3-2*. The tagRFP signal was detected in the ER and vacuoles (left). A 50  $\mu$ M cycloheximide treatment to inhibit protein synthesis completely excluded signals in the ER (right), indicating that ERMO3-tagRFP was transported from the ER to the vacuole. Note that no obvious aggregate was seen in the left panel, indicating the functionality of the fusion protein. Bars, 10  $\mu$ m. (b) Alignment of the GDSL motif in the catalytic center of ERMO3/MVP1/GOLD36 and homologues. Note that only ERMO3/MVP1/GOLD36 does not possess Ser residue (blue letter). This substitution was specifically seen in ERMO3/MVP1/GOLD36, among all other homologues (data not shown). (c) ERMO3/MVP1/GOLD36 protein, with the proper catalytic center residue introduced (ERMO3<sup>G59S</sup>), was fused with tagRFP and expressed in *ermo3-1*. T1 progeny were observed using a confocal microscope. ERMO3<sup>G59S</sup>-tagRFP was properly transported to the vacuole, and SP-GFP-HDEL did not show any aggregates of ER, indicating that ERMO3<sup>G59S</sup>-tagRFP was fully functional. Bars, 10  $\mu$ m.