Supplementary Materials

Storage globulins pass through the Golgi apparatus and multivesicular bodies in the absence of dense vesicle formation during early stages of cotyledon development in mung bean

Junqi Wang, Yu Chung Tse, Giselbert Hinz, David G. Robinson, and Liwen Jiang

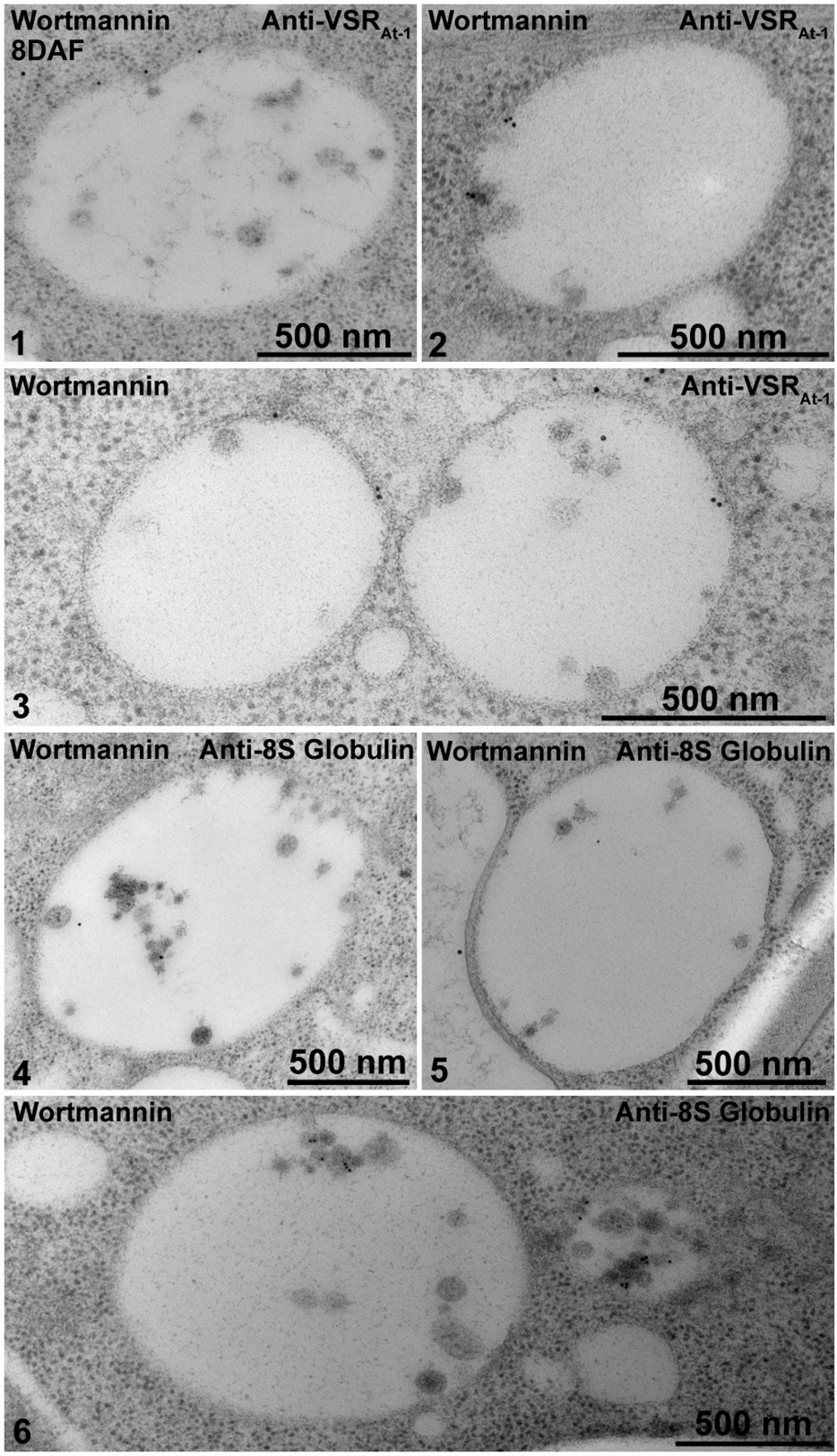

Figure S1. Immunogold EM analysis of wortmannin treatment on MVBs/PVCs of 8 DAF developing mung bean cotyledons.

Developing mung bean cotyledons at 8 DAF stage were collected and treated with wortmannin, followed by high-pressure frozen/freeze-substituted and embedded in HM20. Ultra-thin sections were then prepared, followed by immunogold EM analysis using either anti-8S globulin or anti-VSR antibodies as indicated. Scale bars = 500nm. VSR, vacuoalr sorting receptor.

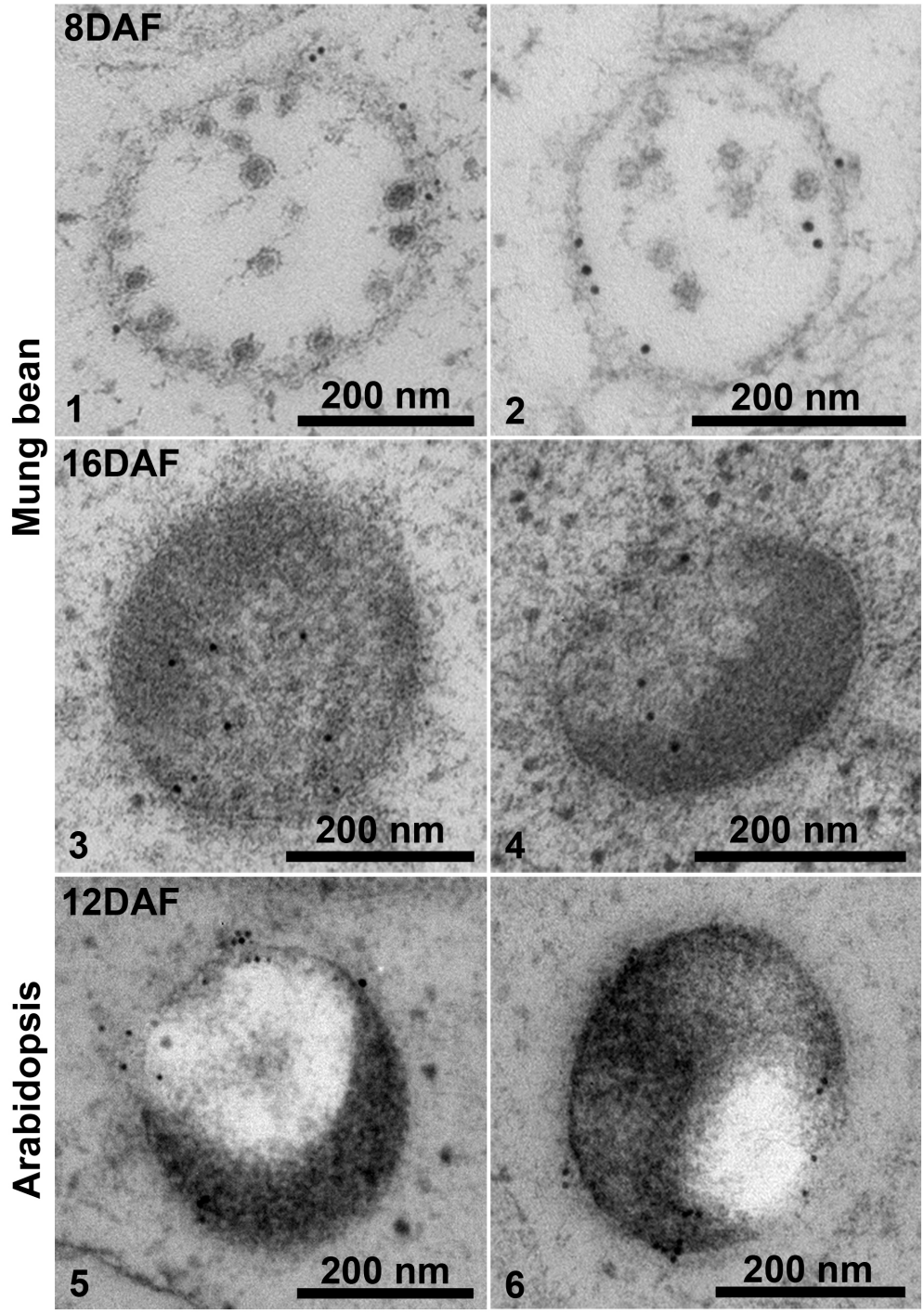

Figure S2. Immunogold EM Analysis of MVB/PVCs in Developing Mung bean and Arabidopsis Seeds using anti-VSRat-1 antibody.

Developing mung bean (at 8 DAF and 16 DAF) and Arabidopsis (at 12DAF) seeds were collected, high-pressure frozen/freeze-substituted and embedded in HM20. Ultra-thin sections were then prepared, followed by immunogold EM analysis using anti-VSRat-1 antibodies as indicated. Panels 1-2, show VSRat-1-positive MVBs in 8 DAF mung bean cotyledons. Panels 3-4, show distinct MVBs labeled with anti-VSRat-1 antibody in 16 DAF mung bean cotyledons. Panels 5-6, show PVCs labeled with anti-VSRat-1 antibody in 12 DAF Arabidopsis embryo. Scale bars = 200nm.