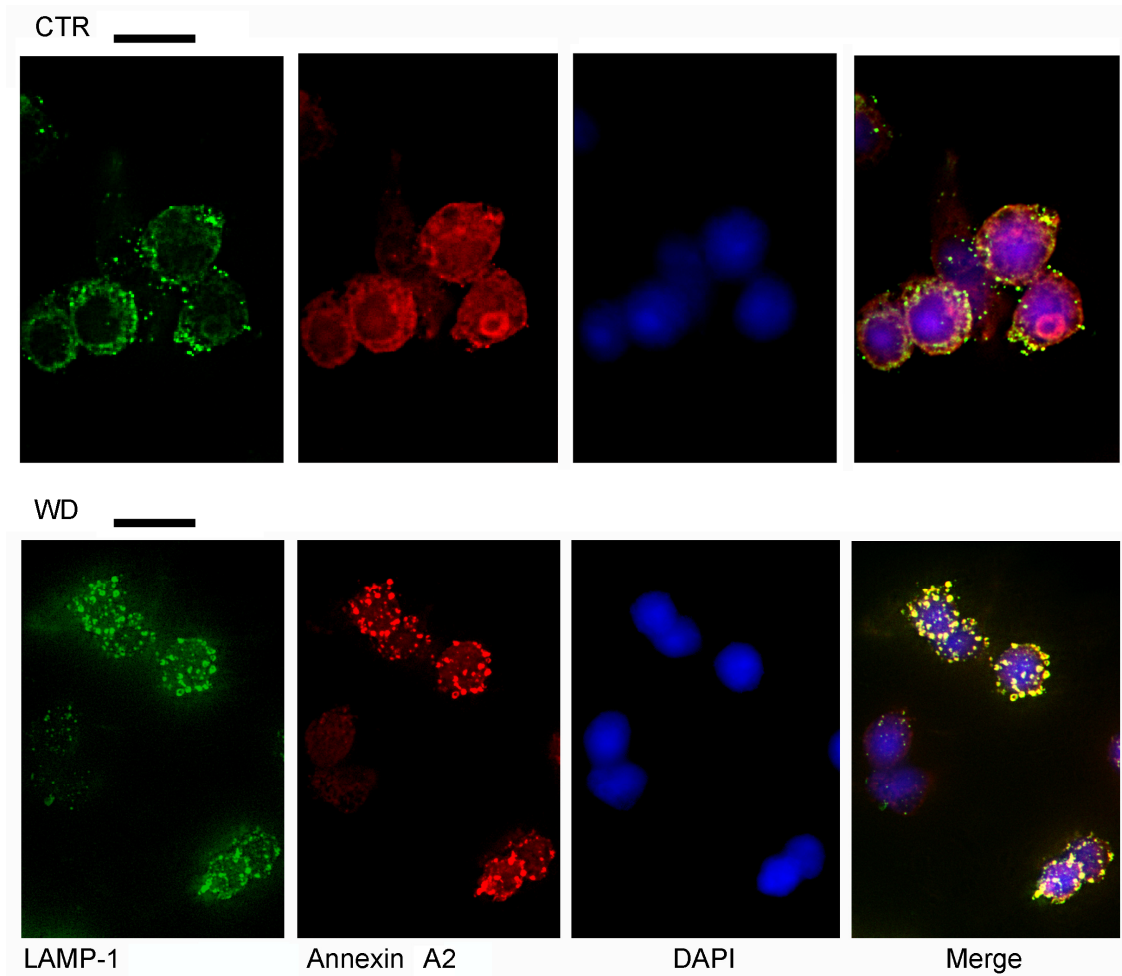


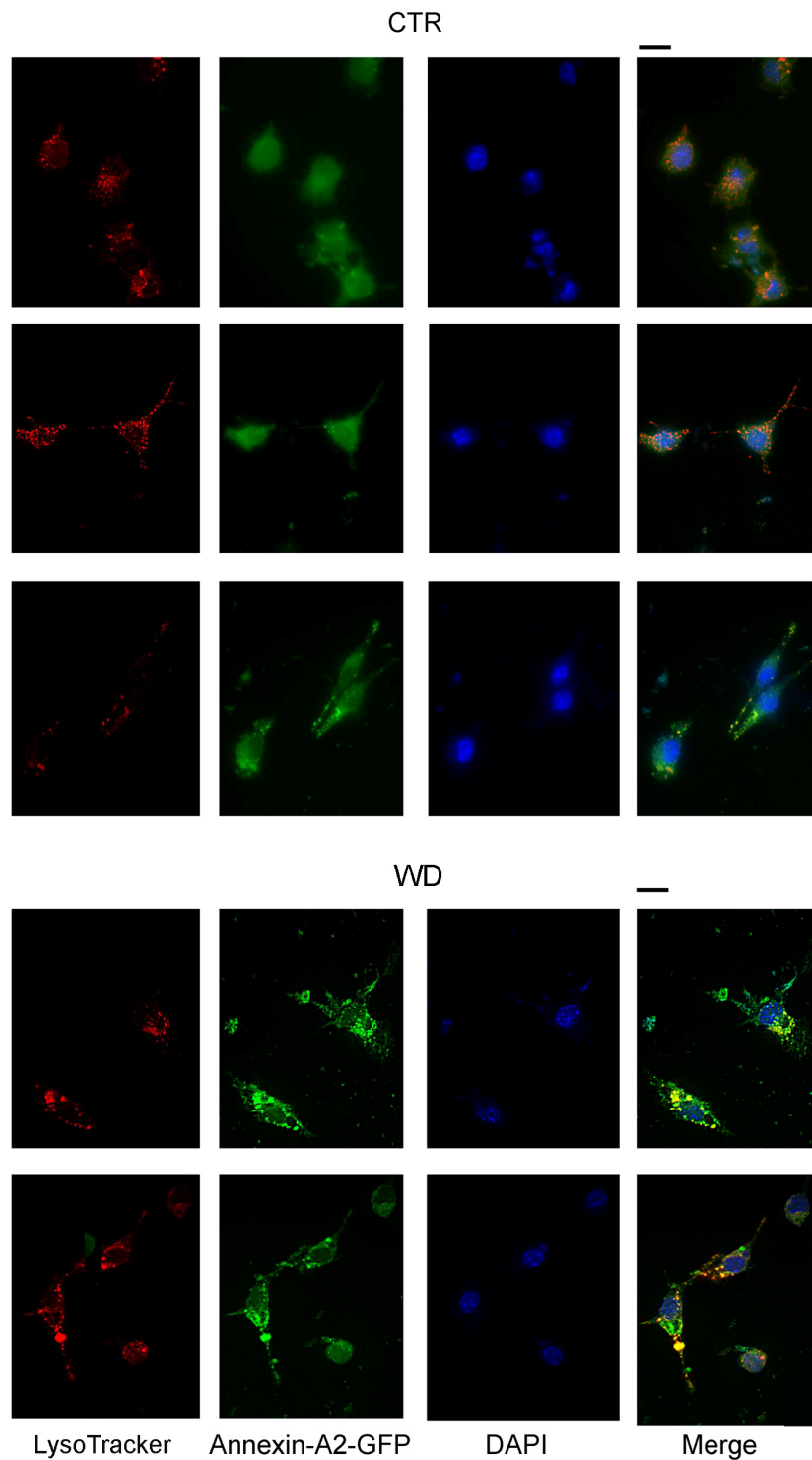
### Supplementary Figure S1. Markers of endosomal compartments

Western blot analysis of total cell lysates and gradient purified late endosomes and lysosomes for markers known to be enriched in endosomal compartments. Markers include the endosomal transmembrane protein LAMP1, MHC class II, and the MHC chaperone invariant chain, which is processed in endosomal compartments, and cathepsin S, whose cleaved fragment is enriched in endosomes.

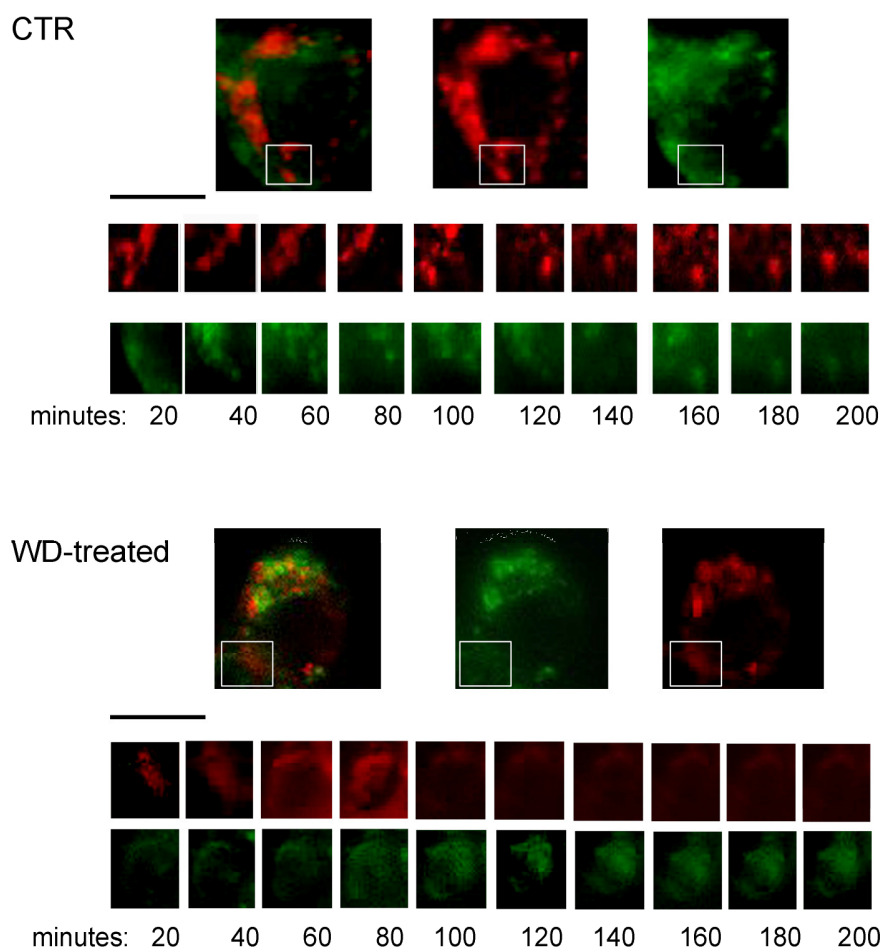


**Supplementary Figure S2 Immunofluorescence analysis of control and WD-treated DC**

Control and WD-treated cells were stained for LAMP1, annexin A2, and DAPI. Untreated cells were characterized by numerous, well-delineated LAMP1<sup>+</sup> structures and a cytosolic distribution of annexin A2. WD-exposed DC demonstrated an extensive increase in the size and number of “doughnut-like” structures, in which complete co-localization of LAMP1 and annexin A2 were observed. Bar corresponds to 10  $\mu$ m.



**Supplementary Figure S3 Immunofluorescence analysis of control and WD-treated DC** Control and WD-treated annexin A2-GFP transfectants, stained with LysoTracker and DAPI. Untreated cells (CTR) were characterized by numerous, well delineated LysoTracker + structures, and a cytosolic distribution of annexin A2. WD- exposed cells demonstrated colocalization of LysoTracker with annexin A2. Bar corresponds to 10  $\mu$ m.



**Supplementary Figure S4. Timelapse microscopy of control and WD-treated DC**

Control and WD-treated annexin A2-GFP transfectants, which phagocytosed LysoTracker and WD. In control cells annexin A2 and LysoTracker are observed in different subcellular localizations. In WD-treated cells, endosomal leakage of LysoTracker is observed over 40-60 minutes. Annexin A2 is recruited to the site of leakage. Bar corresponds to 10  $\mu\text{m}$ .