Supplementary Information

Human ATG3 binding to lipid bilayers: role of lipid geometry, and electric charge

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Supplementary Figure 1

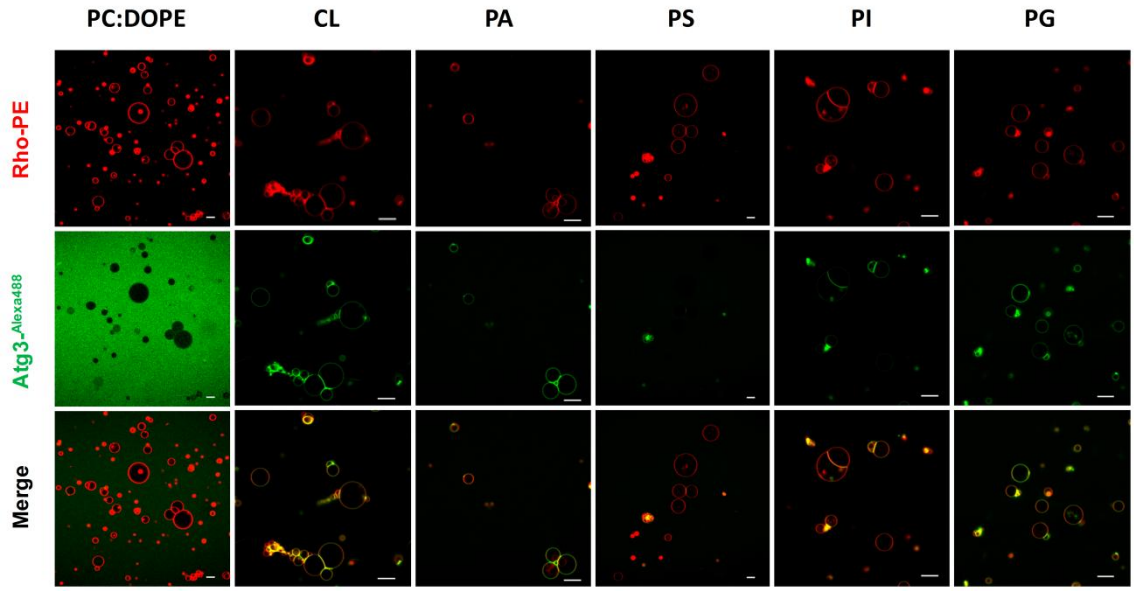

Figure S1. ATG3 interaction with negatively-charged GUVs. Different anionic phospholipids are incorporated to GUVs (labeled with Rhodamine-PE) and protein (labeled with Alexa-488) incorporation to them was observed by confocal microscopy. Merge: yellow indicates colocalization of both probes. Scale bars: 10 μm.

Supplementary Figure 2

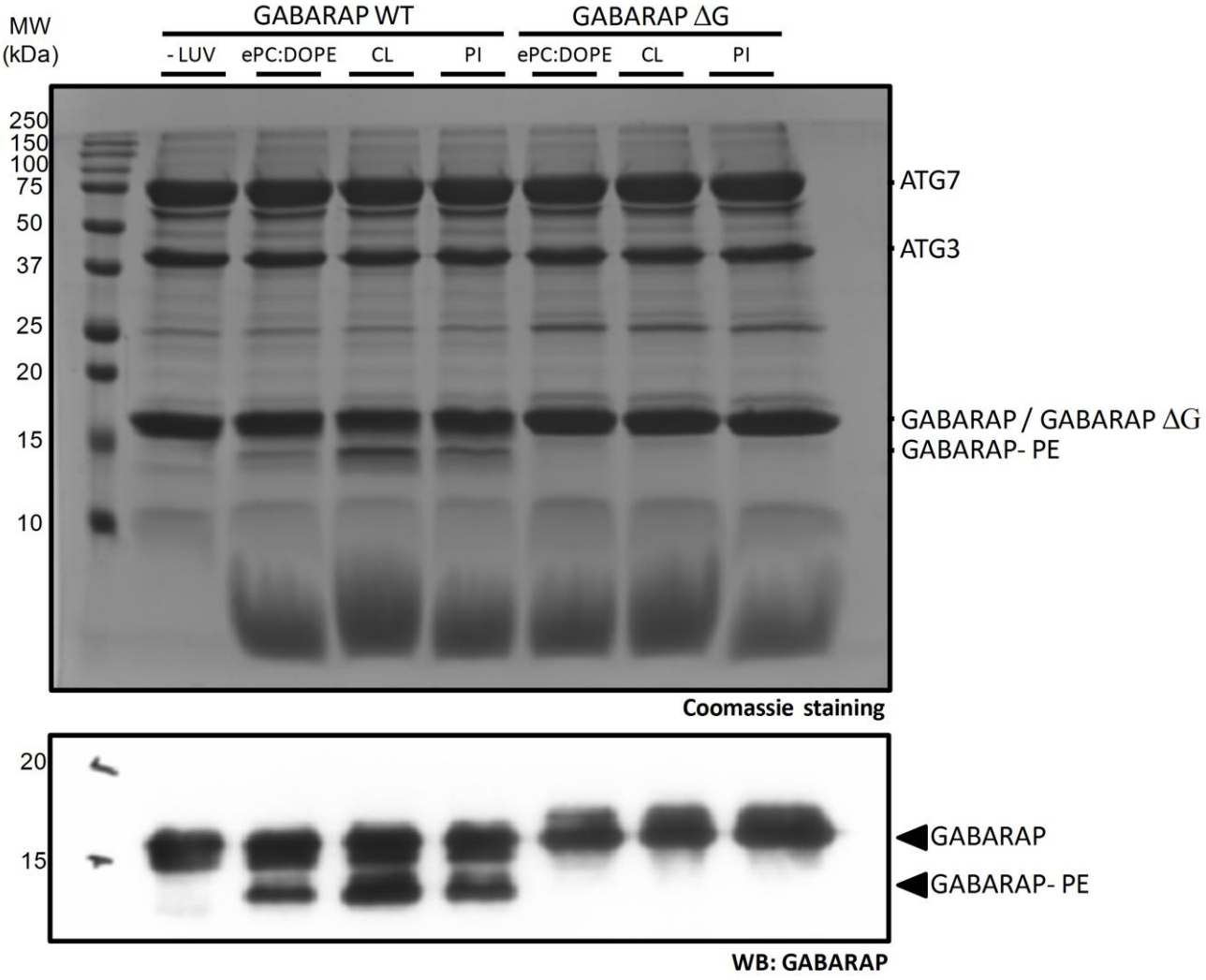

Figure S2. Coomassie blue staining (upper panel) and anti-GABARAP Western blotting (lower panel) of the *in vitro* lipidation reaction using different lipid compositions. Lipid compositions are ePC:DOPE (70:30 mol ratio), ePC:DOPE:CL (60:30:10 mol ratio) and ePC:DOPE:PI (50:30:20 mol ratio). Black arrow heads indicate lipidated and non-lipidated forms of GABARAP.

Supplementary Figure 3

Figure 3 uncropped gels

Figure 3A (αATG3 western Blot)

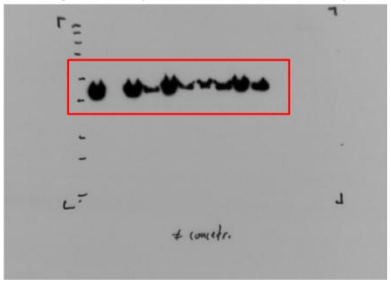

Figure 3B (αATG3 western Blot)

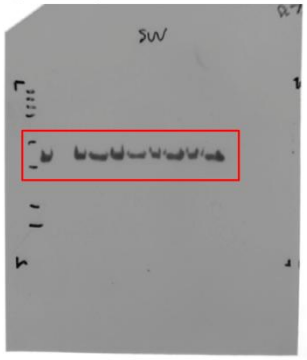

Figure 3C (αATG3 western Blot)

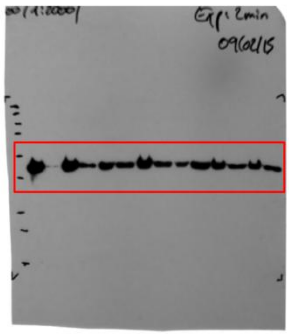

Figure 8 uncropped gels

Figure 8D (coomassie)

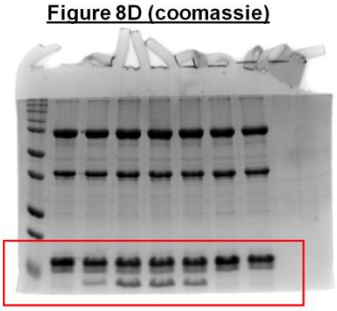

Figure 8D (αGABARAP western Blot)