**Supplementary Figure 2**

**A** Hydrophobicity plot of GABARAP together with ALFY LIR peptide

**B** Binding of the ALFY core LIR on the surface of GABARAP

**C** Interactions between Lys24/Tyr25 of GABARAP and Asp3344 of ALFY

**D** Interactions between Asp54 of GABARAP and Tyr3351 of ALFY

**E** Purified proteins used in Fig 3e and f were separated by SDS-PAGE and stained with Coomassie brilliant blue (CBB).

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**Supplementary Figure S2**

**A** GABARAP amino acids was colored according to a hydrophobicity scale[7], where the most hydrophobic amino acids are the ones with the darkest shade of red. ALFY LIR peptide is presented in yellow, with F3346 and V3349 in dark blue presented as sticks.

**B** Stick model of ALFY core LIR on the surface of GABARAP.

**C and D** Alignment of the GABARAP-ALFY-peptide complex (in brown and yellow respectively) with the published structure of LC3B (1UGM, shown in blue). Residues highlighted as sticks in the structural cartoon are possible sites of interactions, outside the core LIR, between GABARAP and ALFY LIR peptide, together with corresponding residues in LC3B. Black lines indicate residues that are close enough to be involved in ionic interactions.

**E** Purified proteins used in Fig 3e and f were separated by SDS-PAGE and stained with Coomassie brilliant blue (CBB).