Appendix Supplementary Information

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Appendix Figure S1.

GST-UBQLN4 interacts with BAG6 in vitro.

(A) Purified Flag-tagged BAG6 protein was mixed with equal amounts of bacterially produced GST-UBQLN4, GST-HR23a and GST in vitro. After GST pull-down, the precipitates were probed with an anti-BAG6 antibody to detect interaction of these proteins. Precipitated GST proteins were stained with Ponceau S as indicated. (B) GST-UBQLN4 does not interact with Flag-tagged BAG1. The experiments were performed as in (A).

Appendix Figure S2.

Low disorder feature of the UBQLN4 STI-II domain is evolutionarily conserved.

The amino acid sequences of UBQLN4 and UBQLN1 derived from various species were analyzed by the disorder/order structure prediction program PONDR-FIT (http://www.disprot.org/pondr-fit.php). The positions of the STI-II domains are indicated by red boxes. Note that the STI-II domains of UBQLN4 show the lowest disorder score in all mammalian and Aves species examined so far, while those of UBQLN1 do not.
Appendix Figure S3.

Results of data quantification

(A) Polyubiquitination of IL-2RαΔSS in Fig 4C are quantified.

(B) IL-2Rα co-precipitations with UBQLN4 in Fig 5B are quantified.

(C) Polyubiquitin signals co-precipitated with UBQLN4 mutants in Fig 7D are quantified.

(D) Polyubiquitin signals co-precipitated with UBQLN4 in Fig 8B are quantified.
Appendix Figure S1, Suzuki et al.
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