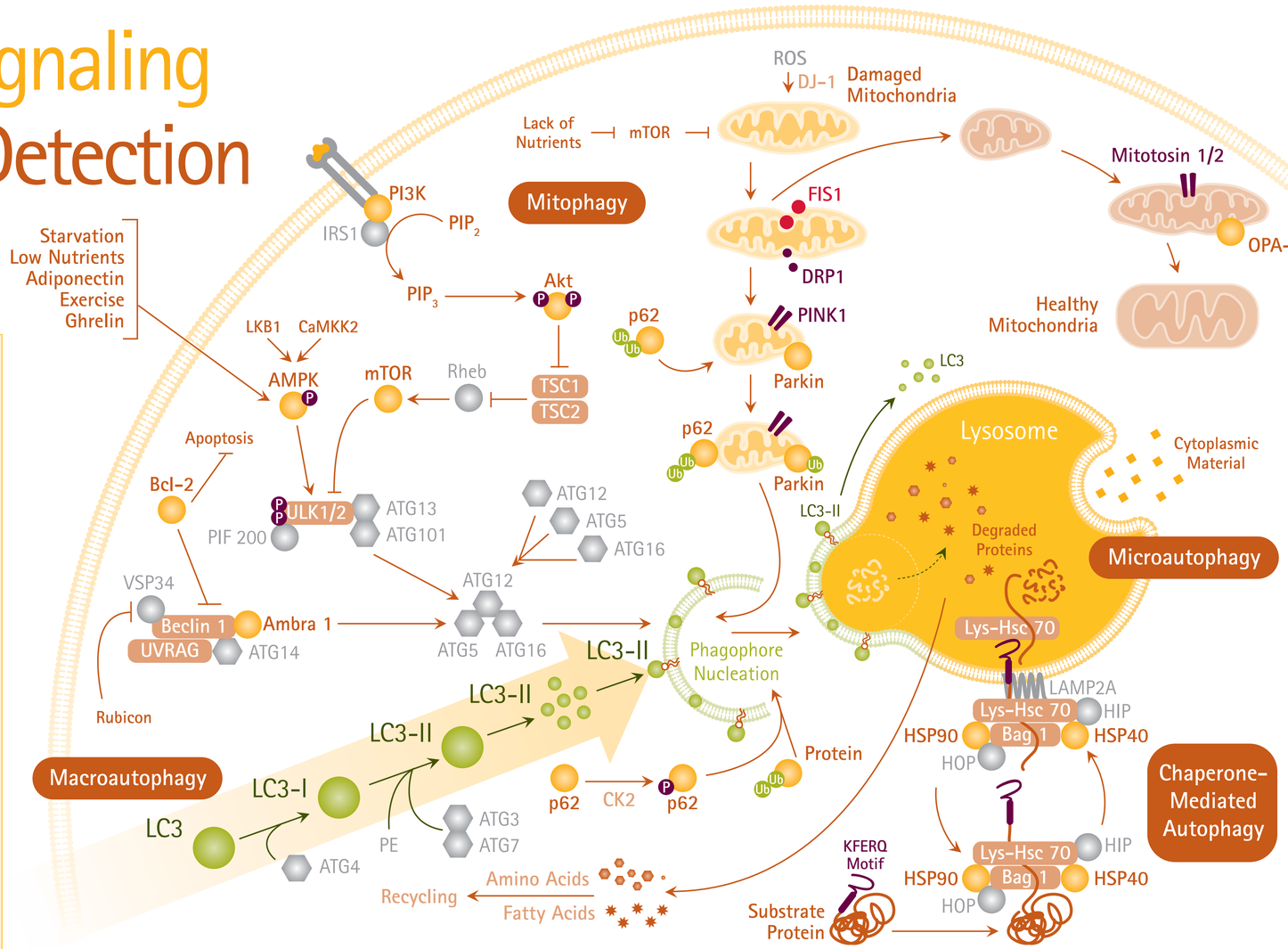
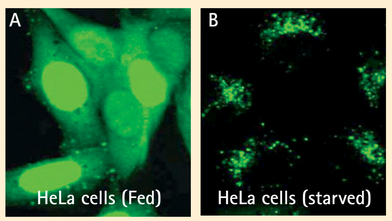
Autophagy Signaling
Pathways & Detection



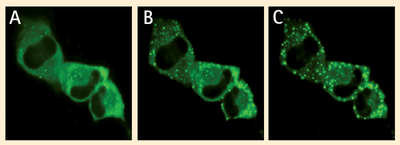
LentiBrite™ GFP/RFP-tagged LC3 and p62 Lentiviral Biosensors

(Catalog Nos. 17-10193, 17-10143, 17-10188, 17-10189, 17-10224 & 17-10404)

Visualize autophagy in real time and precisely localize autophagosome formation, even in difficult to transfect cell types.



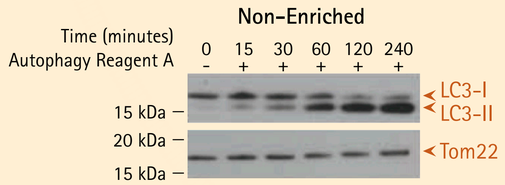
The LentiBrite™ GFP-LC3 transfected cells displays a diffuse nuclear and cytosolic distribution in fed HeLa cells (A), and a punctate distribution in starved autophagic HeLa cells (B).

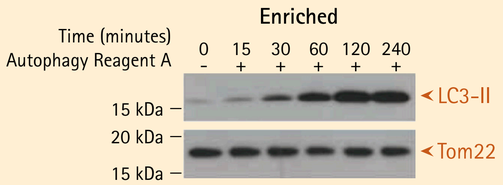


Time-lapsed fluorescence imaging of U2OS cells transfected with LentiBrite™ GFP-p62 shows the gradual translocation of p62 from the cytosol in fed cells (A) to the autophagosome under started conditions (B, C).

LC3-II Enrichment Kits (Western Blot and Flow Cytometry) (Catalog Nos. 17-10232 & 17-10230)

Achieve sensitive and accurate quantification of autophagosome density by removing cytosolic LC3-I and retaining only autophagosome-bound LC3-II.



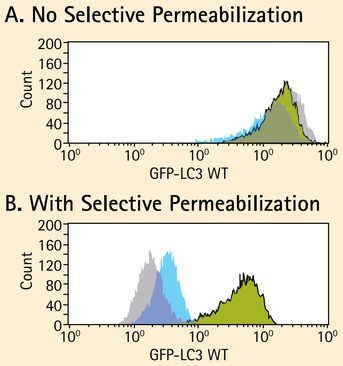


Western Blot Detection of LC3-II before and after enrichment. Under non-enriched conditions, the LC3-I signal is present and decreases after autophagy induction, as the LC3-II signal increases. After enrichment, the LC3-I signal is no longer detectable and the LC3-II signal is retained.

FlowCellect® GFP-LC3 Reporter Cell Line Autophagy Assay Kits

(Catalog Nos. FCCH100181, FCCH100183, & FCCH100170)

A quantitative solution for studying autophagy and measuring the potency of autophagy inducers using flow cytometry.



Flow cytometry detection of LC3 translocation to autophagosomes by addition of a lysosome inhibitor. The FlowCellect® LC3-GFP Reporter Autophagy. Kit was used without selective permeabilization (A) to show high levels of LC3-GFP before and after induction of autophagy. With selective permeabilization (B), LC3-GFP level remains high in autophagosomes when starved in the presence of lysosome inhibitor (green); even without the inhibitor, a slight shift is observed when starved (blue). All cytosolic LC3-GFP is washed away if no autophagy is induced by starvation (gray).

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