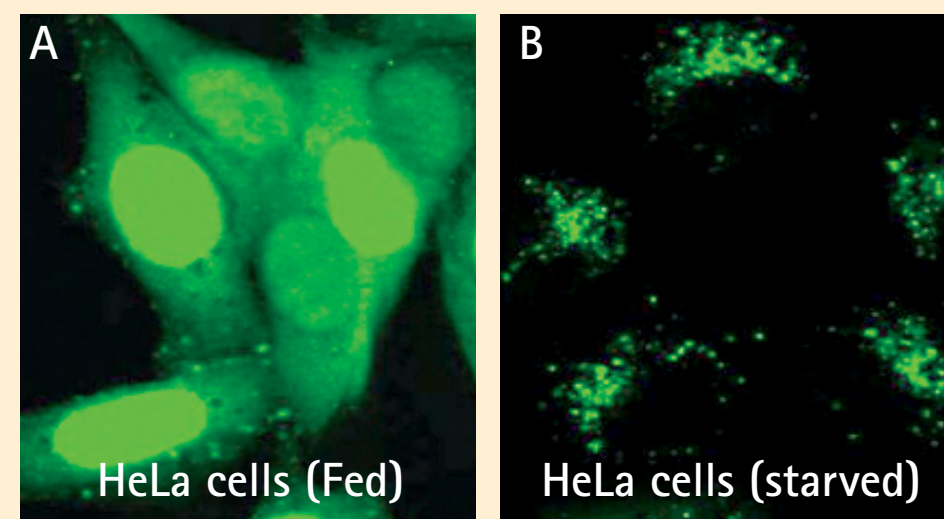


Autophagy Signaling Pathways & Detection

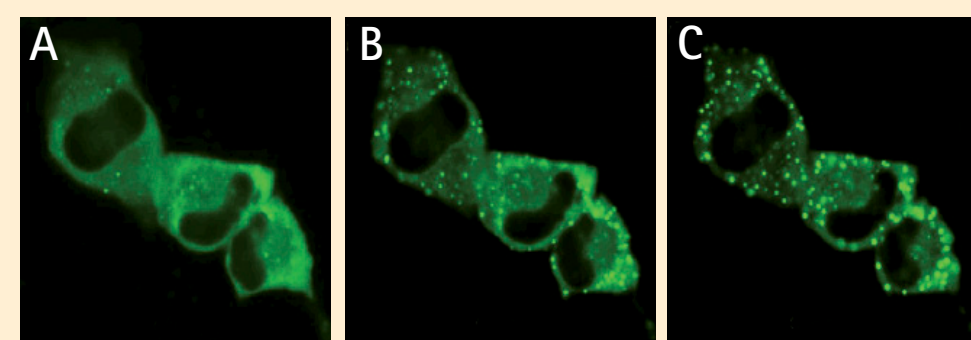
LentiBrite™ GFP/RFP-tagged LC3 and p62 Lentiviral Biosensors

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

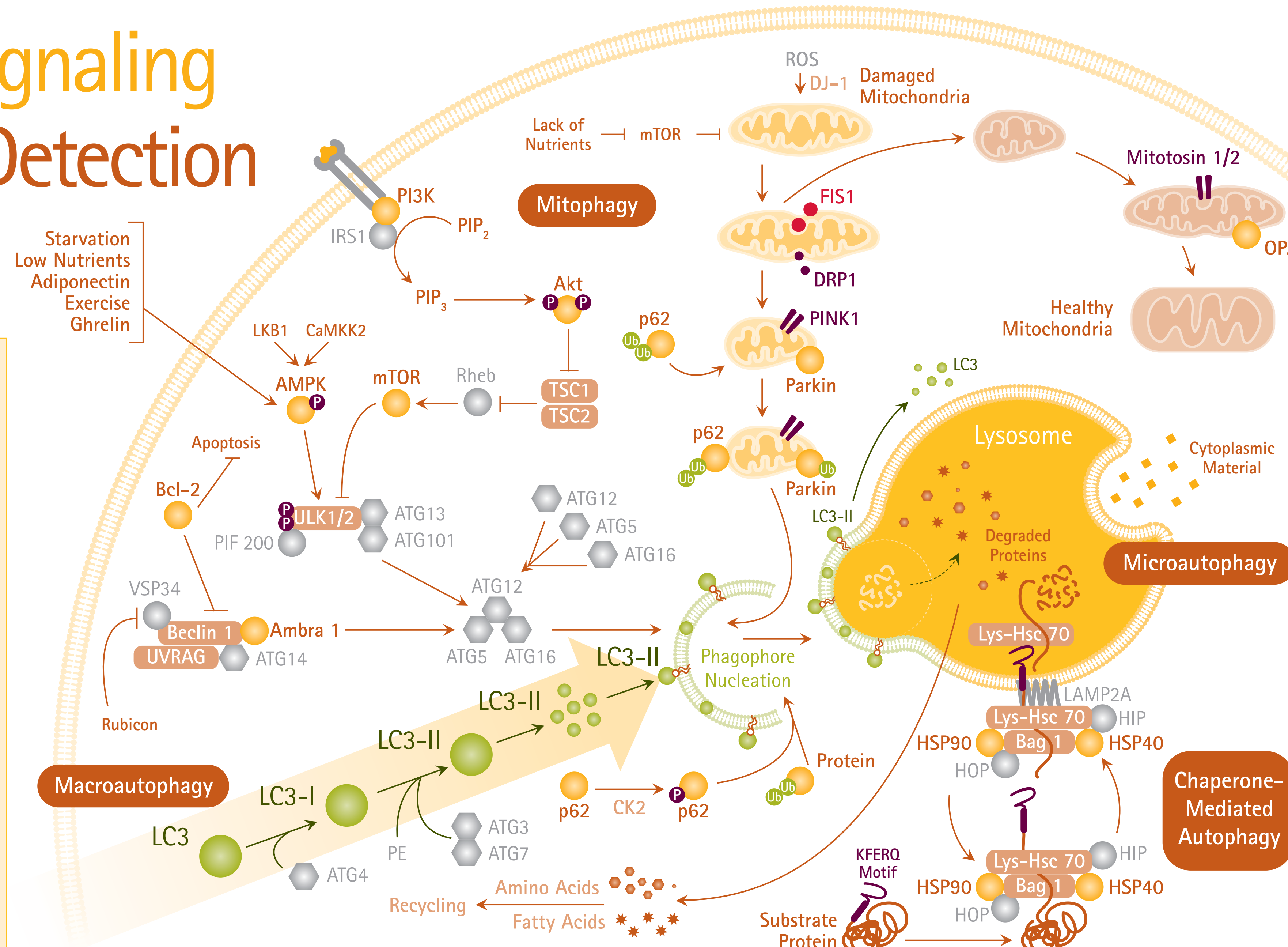
Visualize autophagy in real time and precisely localize autophagosome formation, even in difficult to transfect cell types.



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).

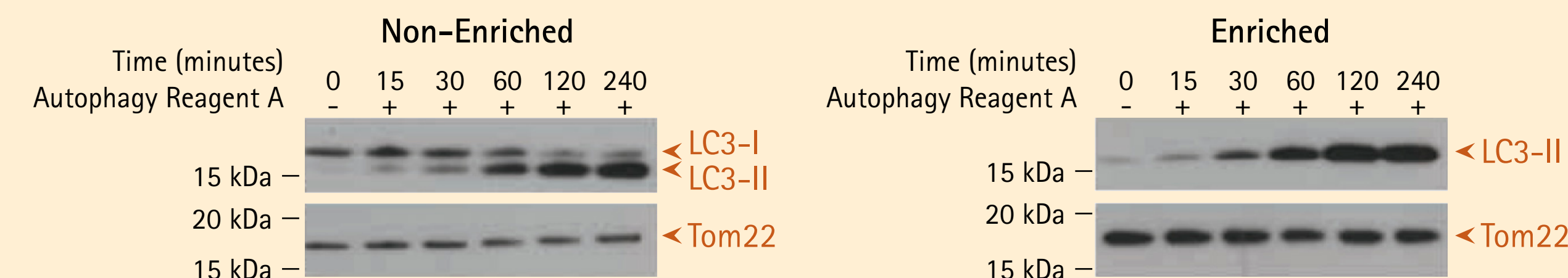


Time-lapsed fluorescence imaging of U2OS cells transfected with LentiBrite™ GFP-p62 shows the gradual translocation of p62 from the cytosol in fed cells (A) to the autophagosome under started conditions (B, C).



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.



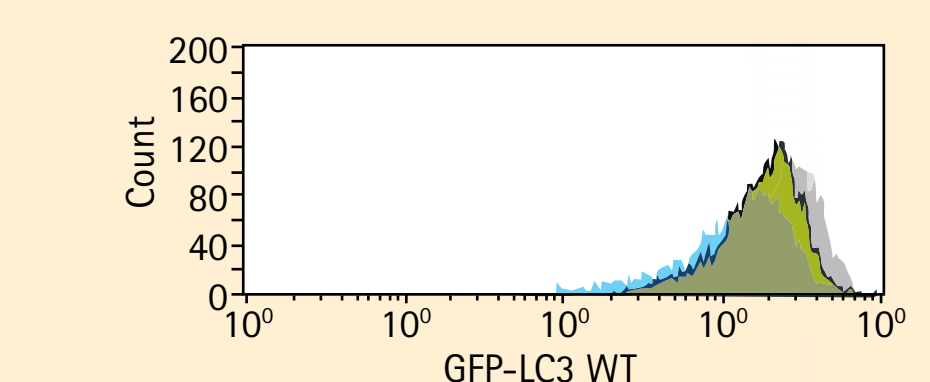
Western Blot Detection of LC3-II before and after enrichment. Under non-enriched conditions, the LC3-I signal is present and decreases after autophagy induction, as the LC3-II signal increases. After enrichment, the LC3-I signal is no longer detectable and the LC3-II signal is retained.

FlowCelect® GFP-LC3 Reporter Cell Line Autophagy Assay Kits

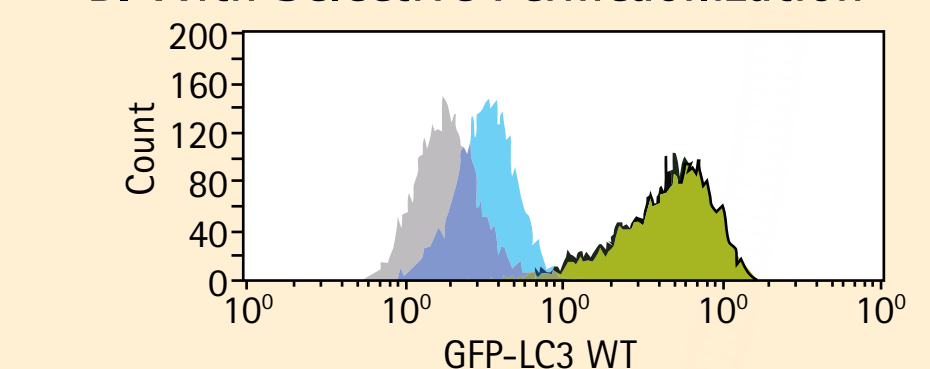
(Catalog Nos. FCCH100181, FCCH100183, & FCCH100170)

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

A. No Selective Permeabilization



B. With Selective Permeabilization



Flow cytometry detection of LC3 translocation to autophagosomes by addition of a lysosome inhibitor. The FlowCelect® 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).