**LC3B Antibody**

**Applications:**
- WB: Western Blotting

**Reactivity:**
- H: Human
- M: Mouse
- R: Rat

**MW (kDa):**
14, 16

**Source:**
- Rabbit

**UniProt ID:**
Q9GZQ8

**Entrez-Gene Id:**
81631

**Product Usage Information**

**Application**
- Western Blotting

**Dilution**
1:1000

**Storage**
Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**
LC3B detects endogenous levels of total LC3B protein. Cross-reactivity may exist with other LC3 isoforms. Stronger reactivity is observed with the type II form of LC3B.

**Species Reactivity:**
- Human, Mouse, Rat

**Species predicted to react based on 100% sequence homology:**
- Monkey, Bovine, Pig

**Source / Purification**
Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of LC3B. Antibodies were purified by peptide affinity chromatography.

**Background**
Autophagy is a catabolic process for the autophagosomic-lysosomal degradation of bulk cytoplasmic contents (1,2). Autophagy is generally activated by conditions of nutrient deprivation, but it has also been associated with a number of physiological processes including development, differentiation, neurodegenerative diseases, infection, and cancer (3). Autophagy marker Light Chain 3 (LC3) was originally identified as a subunit of microtubule-associated proteins 1A and 1B (termed MAP1LC3) (4) and subsequently found to contain similarity to the yeast protein Apg8/Aut7/Cvt5 critical for autophagy (5). Three human LC3 isoforms (LC3A, LC3B, and LC3C) undergo posttranslational modifications during autophagy (6-9). Cleavage of LC3 at the carboxy terminus immediately following synthesis yields the cytosolic LC3-I form. During autophagy, LC3-I is converted to LC3-II through lipidation by a ubiquitin-like system involving Atg7 and Atg3 that allows for LC3 to become associated with autophagic vesicles (6-10). The presence of LC3 in autophagosomes and the conversion of LC3 to the lower migrating form, LC3-II, have been used as indicators of autophagy (11).

**References**
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