

Anti-LC3A Antibody (4U976)

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Molecular Weight:	Theoretical: 14/16 kDa. Actual: 15 kDa.
Clone:	4U976
Purification:	Protein G purified

Applications

Verified Activity:

1. Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (LC3A) Monoclonal Antibody, Unconjugated (TMAB-01098) at 1:400 overnight at 4°C, followed by a conjugated secondary for 20 min and DAB staining.
2. Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (LC3A) Monoclonal Antibody, Unconjugated (TMAB-01098) at 1:400 overnight at 4°C, followed by a conjugated secondary for 20 min and DAB staining.
3. Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (LC3A) Monoclonal Antibody, Unconjugated (TMAB-01098) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Mouse IgG antibody for 90 minutes, and DAPI for nucleus staining.
4. Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (LC3A) Monoclonal Antibody, Unconjugated (TMAB-01098) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Mouse IgG antibody for 90 minutes, and DAPI for nucleus staining.
5. Paraformaldehyde-fixed, paraffin embedded (rat cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (LC3A) Monoclonal Antibody, Unconjugated (TMAB-01098) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.
6. Paraformaldehyde-fixed, paraffin embedded (human cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (LC3A) Monoclonal Antibody, Unconjugated (TMAB-01098) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.
7. Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (LC3A) Monoclonal Antibody, Unconjugated (TMAB-01098) at 1:200 overnight

at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.
8. Paraformaldehyde-fixed, paraffin embedded (human brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (LC3A) Monoclonal Antibody, Unconjugated (TMAB-01098) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.

9. Sample:

Lane 1: Mouse Cerebrum tissue lysates

Lane 2: Rat Cerebrum tissue lysates

Lane 3: Rat Cerebellum tissue lysates

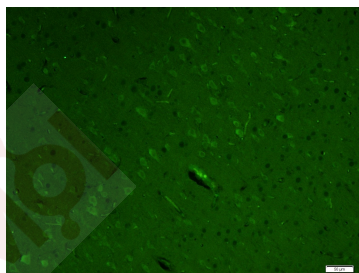
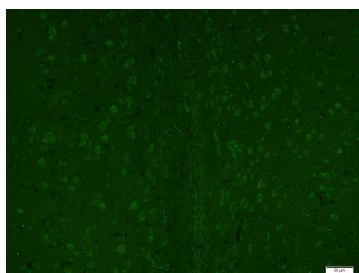
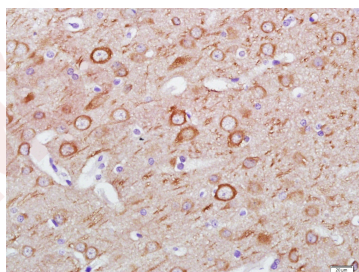
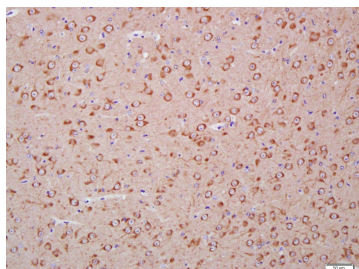
Primary: Anti-LC3A (TMAB-01098) at 1/1000 dilution

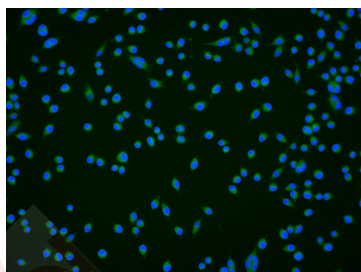
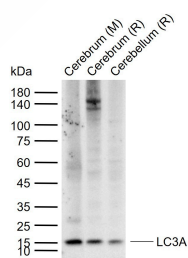
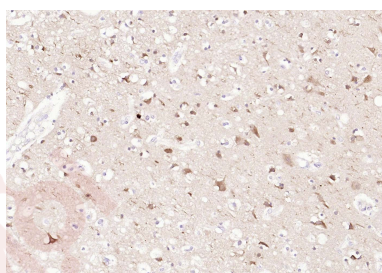
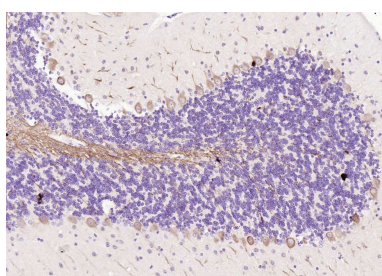
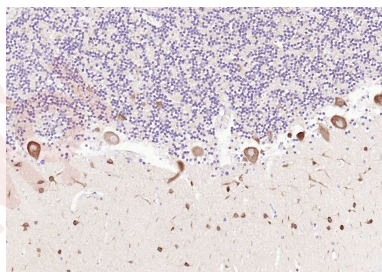
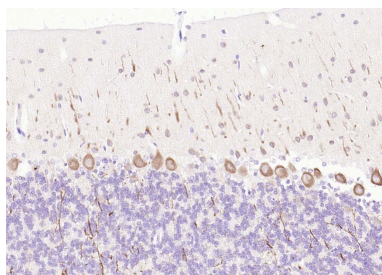
Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution

Predicted band size: 14/16 kDa

Observed band size: 15 kDa

10. SH-SY5Y cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (LC3A) polyclonal Antibody, Unconjugated (TMAB-01098) 1:25, 90 minutes at 37°C; followed by a conjugated Goat Anti-Mouse IgG antibody at 37°C for 90 minutes, DAPI (blue) was used to stain the cell nucleus.





Application: IF,IHC-Fr,IHC-P,WB

Recommended IF=1:100-500; IHC-Fr=1:100-500; IHC-P=1:100-500; WB=1:500-1000

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: KLH conjugated synthetic peptide: human LC3A

Antigen Species: Human

Gene ID: 84557

Uniprot ID: Q9H492

Synonyms: MAP1A/MAP1B LC3 A;Microtubule-associated protein 1 lig;MAP1A/MAP1B light chain 3 A; Autophagy-related ubiquitin-like modifier LC3 A;MAP1 light chain 3-like protein 2;Autophagy-related protein LC3 A;Microtubule-associated proteins 1A/1B light chain 3A

Biology Area: APG gene products,Signal Transduction,Autophagy,APG gene products,Autophagy and mitophagy,APG gene products,Neurogenesis,MAP

Research Background

A major contributor to cellular homeostasis is the ability of the cell to strike a balance between the formation and degradation/removal of its cellular components. This process of internal cellular turn-over is called autophagy (self-eating), and is facilitated by a pathway of around 16 interacting proteins in the human. LC3, a ubiquitin-like modifier protein, is the human homolog of yeast Apg8 and is involved in the formation of autophagosomal vacuoles, called autophagosomes. LC3 is expressed as 3 splice variants (LC3A, LC3B and LC3C), which exhibit different tissue distributions and are processed into cytosolic and autophagosomal membrane-bound forms, termed LC3-I and LC3-II, respectively. A disruption to the autophagic process is now associated with the progression of several cancers, neurodegenerative disorders and cardiac pathologies, where LC3 is widely employed as a marker for autophagy.

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