bsm-33309M **[Primary Antibody]**

LC3A Mouse mAb

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DATASHEET

Host: Mouse
Isotype: IgG
Clonality: Monoclonal
CloneNo.: 7G10
GeneID: 81631
SWISS: Q9GZQ8
Target: LC3A

Immunogen: KLH conjugated synthetic peptide derived from human LC3A: 1-100/121.

Purification: affinity purified by Protein G

Concentration: 1mg/ml

Storage: Size : 50ul/100ul/200ul
0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Size : 200ug (PBS only)
0.01M PBS
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

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.

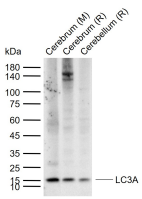
Applications: **WB** (1:500-1000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
ICC/IF (1:25)

Reactivity: Human, Mouse, Rat

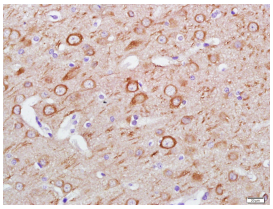
Predicted MW.: 14/16 kDa

Subcellular Location: Cell membrane ,Cytoplasm

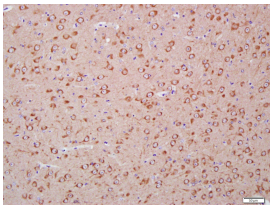
VALIDATION IMAGES



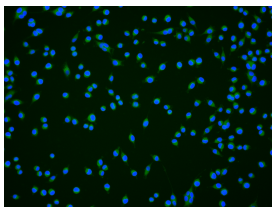
Sample: Lane 1: Mouse Cerebrum tissue lysates Lane 2: Rat Cerebrum tissue lysates Lane 3: Rat Cerebellum tissue lysates Primary: Anti-LC3A (bsm-33309M) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution Predicted band size: 14/16 kDa Observed band size: 15 kDa



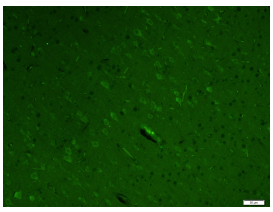
Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (LC3A) Monoclonal Antibody, Unconjugated (bsm-33309M) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



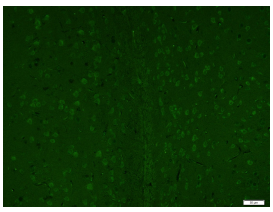
Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (LC3A) Monoclonal Antibody, Unconjugated (bsm-33309M) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



SH-SY5Y cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (LC3A) polyclonal Antibody, Unconjugated (bsm-33309M) 1:25, 90 minutes at 37°C; followed by a conjugated Goat Anti-Mouse IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (LC3A) Monoclonal Antibody, Unconjugated (bsm-33309M) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Mouse IgG antibody (bs-0296G-FITC) for 90 minutes, and DAPI for nuclei staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (LC3A) Monoclonal Antibody, Unconjugated (bsm-33309M) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Mouse IgG antibody (bs-0296G-FITC) for 90 minutes, and DAPI for nuclei staining.

SELECTED CITATIONS

- **[IF=6.1]** Yunxiang Wang. et al. Corilagin attenuates intestinal ischemia/reperfusion injury in mice by inhibiting ferritinophagy-mediated ferroptosis through disrupting NCOA4-ferritin interaction. LIFE SCI. 2023 Oct;:122176 IF ;Mouse. 37858718
- **[IF=5.6]** Kun Li. et al. Oxidative medicine and cellular longevity the role and mechanism of NCOA4 in ferroptosis induced by intestinal ischemia reperfusion. INT IMMUNOPHARMACOL. 2024 May;133:112155 IF ;Mouse. 38688134
- **[IF=2.1]** Rong Hu. et al. Apatinib sensitizes chemoresistant NSCLC cells to doxetaxel via regulating autophagy and enhances the therapeutic efficacy in advanced and refractory/recurrent NSCLC. Mol Med Rep. 2020 Nov;22(5):3935-3943 WB,IHC ;Human. 32901884
- **[IF=1.5]** Daoai Wu. et al. Autologous Platelet-Rich Gel Accelerates Diabetic Wound Healing Through Inhibition of Ferritinophagy. INT J LOW EXTR WOUND. ;(): IHC,WB ;Rat. 38839257