SunLong Biotech Co.,LTD
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Rabbit Anti-Beclin 1 antibody

SL55024R

Product Name	**[KO validated anti]** Beclin 1
Chinese Name	自噬效应蛋白 Beclin 1 抗体
Alias	Beclin-1; ATG6; beclin1; VPS30; Beclin 1 like protein 1; 4921513J16Rik; 5430417M23Rik; ATG6; BECLIN 1; BECN1; MGC6843; BECN1_HUMAN.
Research Area	Tumour immunology Neurobiology Apoptosis
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat(predicted:Rabbit)
Applications	WB=1:500-1000,IHC-P=1:400-800,IHC-F=1:400-800,IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	60kDa
Cellular localization	cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human BECN1: 181-280/450
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product	Beclin 1 is the first identified mammalian gene to mediate autophagy and also has tumor

Detail

suppressor and antiviral function. Autophagy, a process of bulk protein degradation through an autophagosomic lysosomal pathway, is important for differentiation, survival during nutrient deprivation, and normal growth control, and is often defective in tumor cells. Beclin 1 was originally isolated in a yeast two hybrid screen to identify Bcl 2 binding partners and maps to a tumor susceptibility locus on human chromosome 17q21 that is frequently monoallelically deleted in human breast, ovarian and prostate cancer. Beclin 1 encodes an evolutionarily conserved 52kDa coiled coil protein that is expressed in human muscle, epithelial cells and neurons.

Function:
Plays a central role in autophagy. Required for the abcission step in cytokinesis. May play a role in antiviral host defense. Protects against infection by a neurovirulent strain of Sindbis virus.

Subunit:
Interacts with GOPC and GRID2. Interacts with AMBRA1. Forms a complex with PIK3C3 and PIK3R4 and either UVRAG and KIAA0226/Rubicon, or with ATG14. UVRAG and ATG14 form mutually exclusive complexes through direct competition for BECN1-binding. The complex containing ATG14 up-regulates autophagy, while the one containing Rubicon down-regulates autophagy. Interacts with BCL2 and BCL2L1. Interacts with VMP1. Interacts with PIK3CB. Interacts with DAPK1. Interacts with human cytomegalovirus/HHV-5 protein TRS1.

Subcellular Location:
Golgi apparatus, trans-Golgi network membrane; Peripheral membrane protein. Note=Interaction with ATG14 promotes translocation to autophagosomes. Expressed in dendrites and cell bodies of cerebellar Purkinje cells.

Tissue Specificity:
Ubiquitous.

Post-translational modifications:
Phosphorylation at Thr-119 by DAPK1 reduces its interaction with BCL2 and BCL2L1 and promotes induction of autophagy.
Ubiquitinated. Deubiquitinated by USP10 and USP13, leading to stabilize the PIK3C3/VPS34-containing complexes.

Similarity:
Belongs to the beclin family.

SWISS:
Q14457

Gene ID:

8678

Database links:

Entrez Gene: 8678 Human

Entrez Gene: 56208 Mouse

Entrez Gene: 114558 Rat

Omim: 604378 Human

SwissProt: Q14457 Human

SwissProt: O88597 Mouse

SwissProt: Q91XJ1 Rat

Unigene: 716464 Human

Unigene: 178947 Mouse

Unigene: 2776 Rat

BECN1 是一种分子质量为 60KDa 的蛋白质, 它能与 Apoptosis 抑制剂 Bcl-2 相互作用, 减少中枢神经系统的凋亡，参与 PI3K 复合物的组成和自噬体的形成。主要表达在胞质。抑癌基因 beclin 1 通过自噬作用来调节细胞生长。

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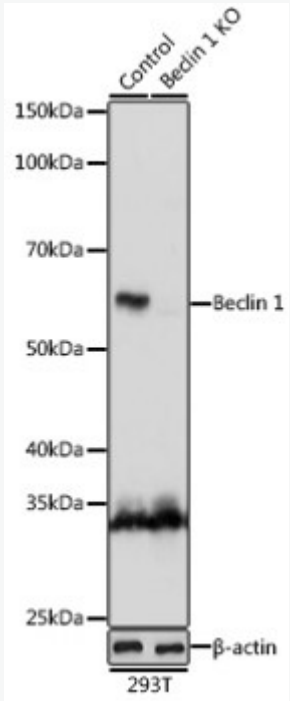
Product Picture



Sample:

Lane 1: 293T (Human) Cell Lysate at 25 ug

Lane 2: Beclin 1 knockout (KO) 293T (Human) Cell Lysate at 25 ug

Primary: Anti-Beclin 1 (SL55024R) at 1/1000 dilution

Secondary: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution

Predicted band size: 55-60 kD

Observed band size: 60 kD

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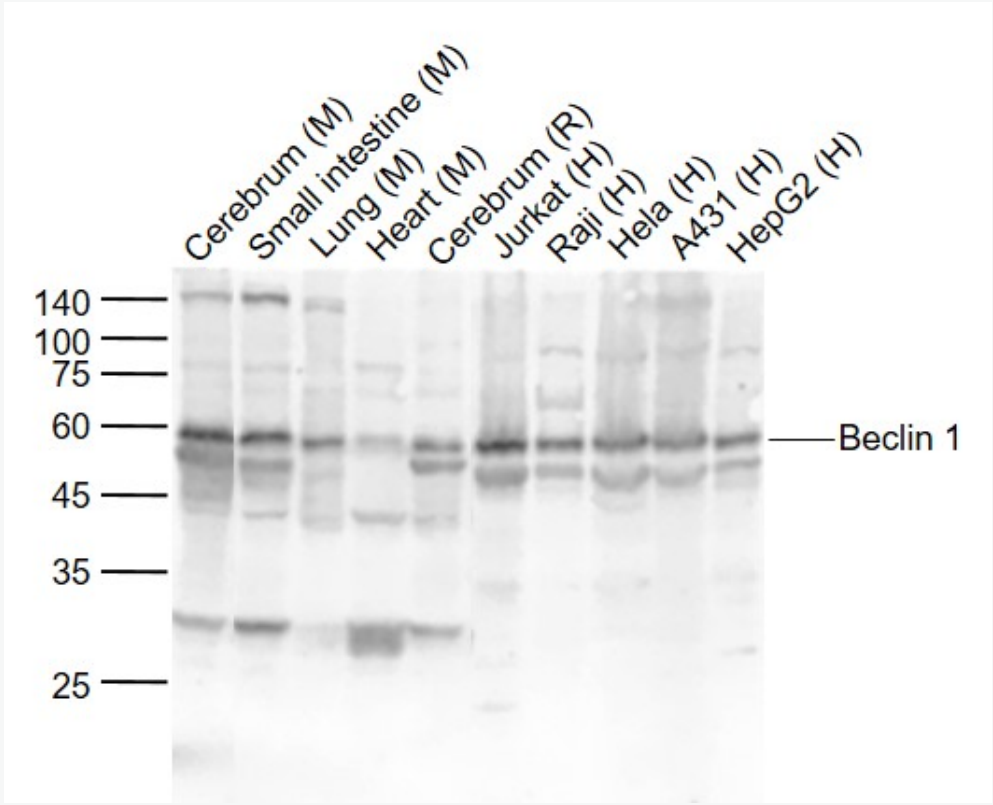


Sample:

Lane 1: Cerebrum (Mouse) Lysate at 40 ug

Lane 2: Small intestine (Mouse) Lysate at 40 ug

Lane 3: Lung (Mouse) Lysate at 40 ug

Lane 4: Heart (Mouse) Lysate at 40 ug

Lane 5: Cerebrum (Rat) Lysate at 40 ug

Lane 6: Jurkat (Human) Cell Lysate at 30 ug

Lane 7: Raji (Human) Cell Lysate at 30 ug

Lane 8: Hela (Human) Cell Lysate at 30 ug

Lane 9: A431 (Human) Cell Lysate at 30 ug

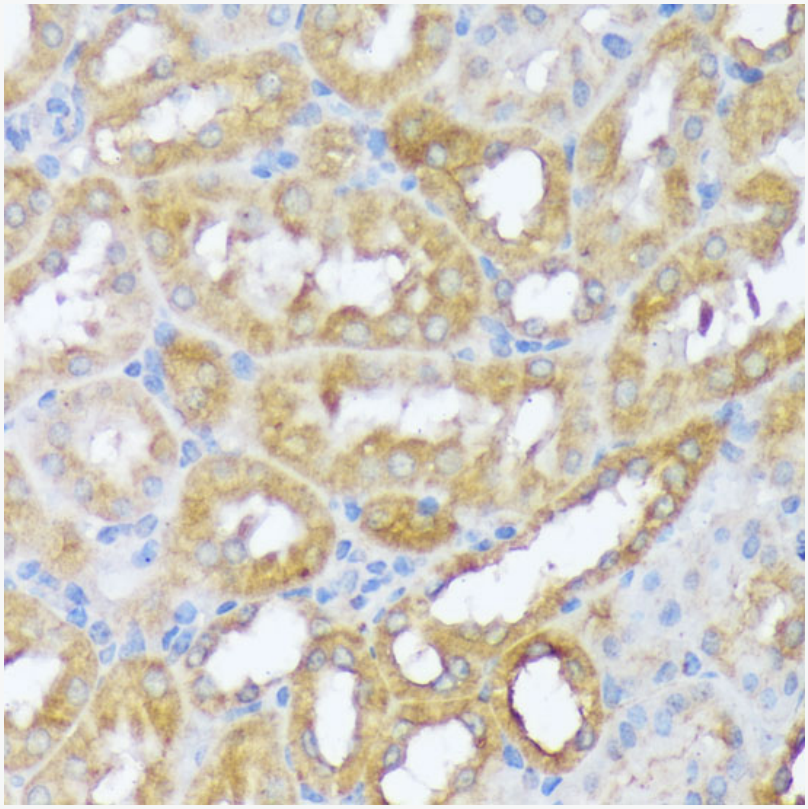
Lane 10: HepG2 (Human) Cell Lysate at 30 ug

Primary: Anti-Beclin 1 (SL55024R) at 1/1000 dilution

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

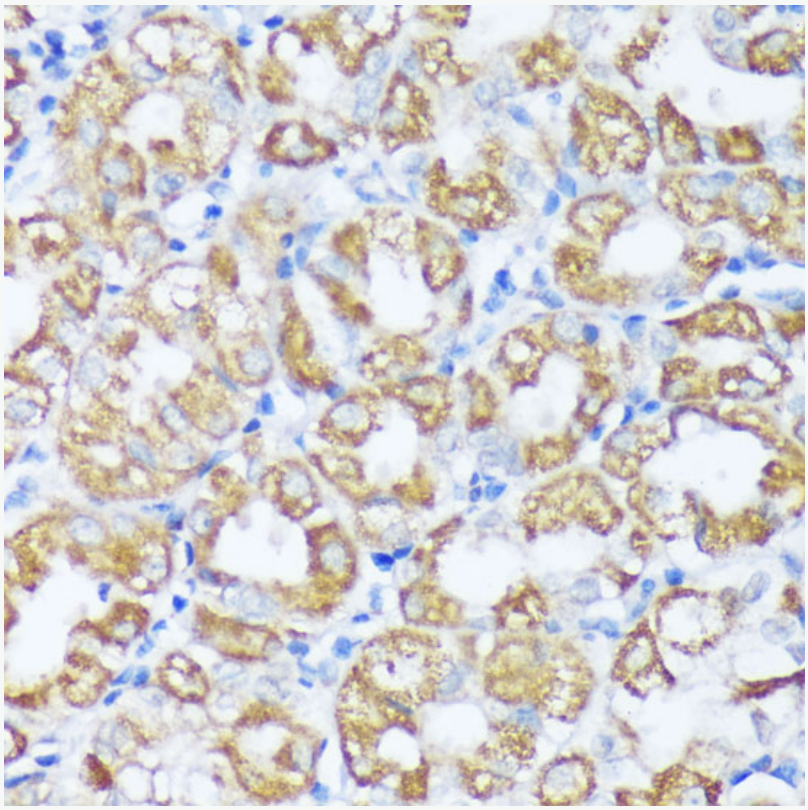
Predicted band size: 55-60 kD

Observed band size: 60 kD



Paraformaldehyde-fixed, paraffin embedded (mouse kidney); 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 (Beclin 1) Polyclonal Antibody, Unconjugated

(SL55024R) at 1:100 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human stomach); 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 (Beclin 1) Polyclonal Antibody, Unconjugated (SL55024R) at 1:100 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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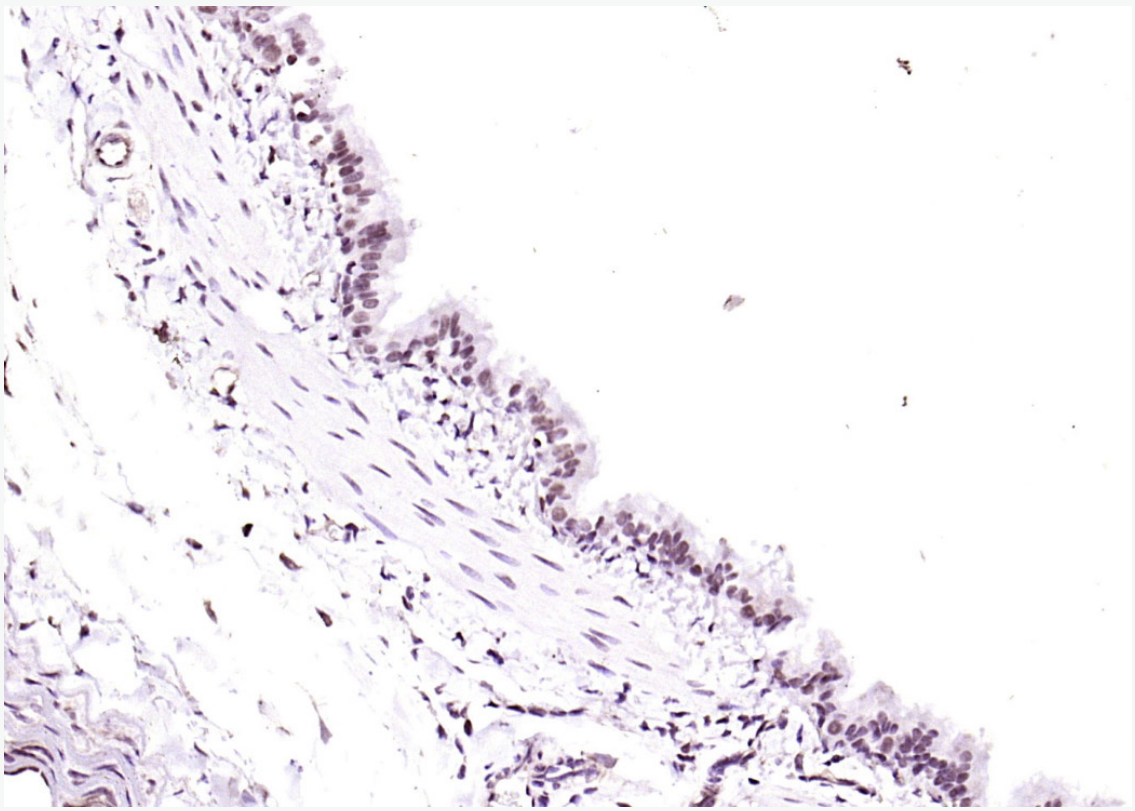

Paraformaldehyde-fixed, paraffin embedded (rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Beclin 1) Polyclonal Antibody, Unconjugated (SL55024R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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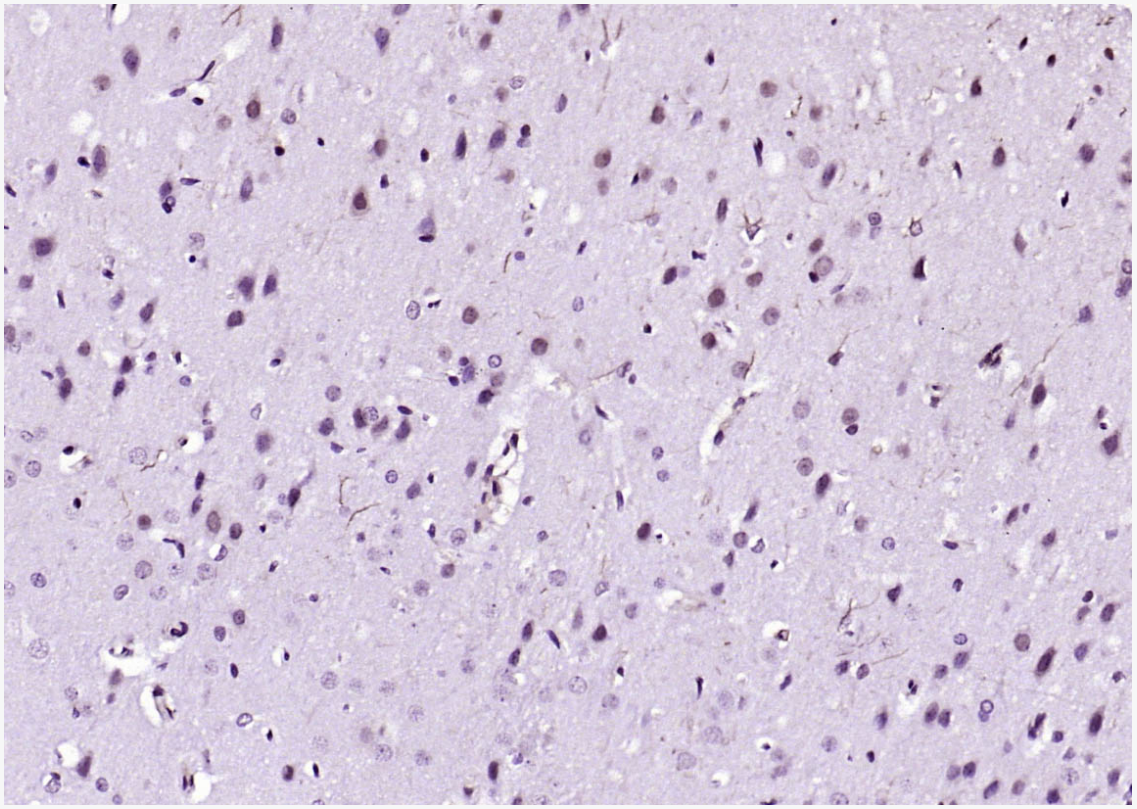

Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Beclin 1) Polyclonal Antibody, Unconjugated (SL55024R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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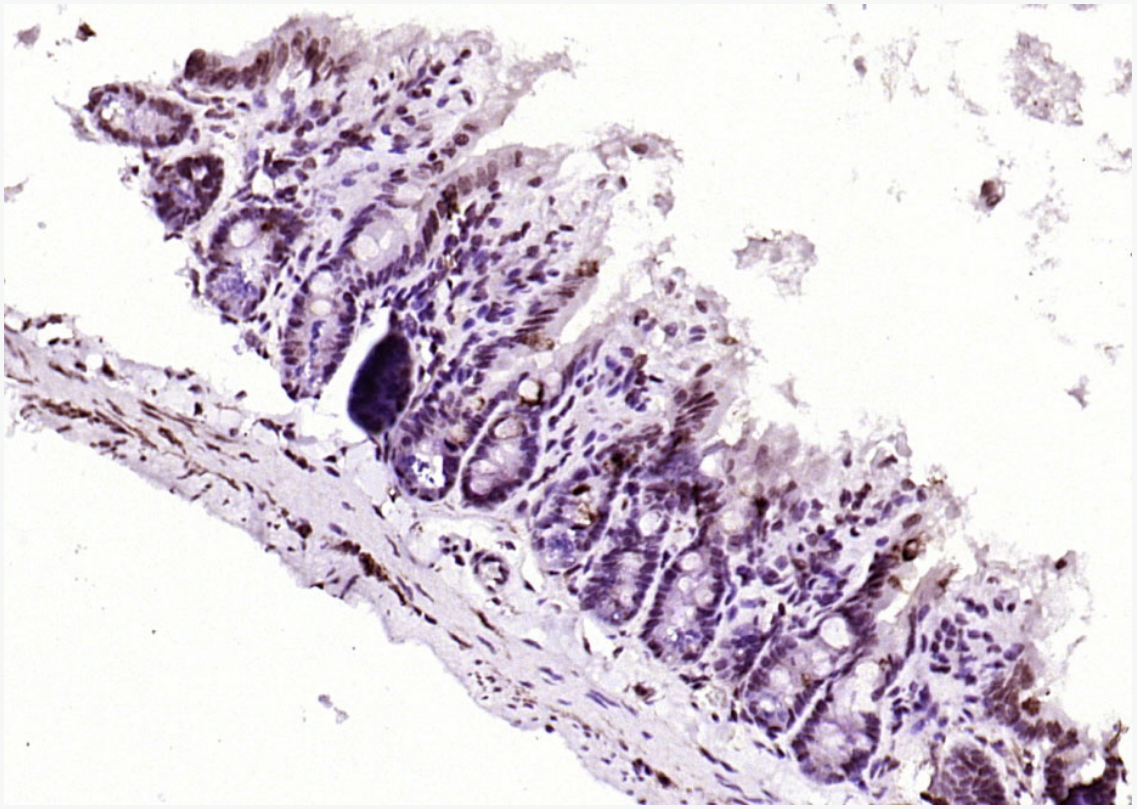

Paraformaldehyde-fixed, paraffin embedded (Mouse small intestine); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Beclin 1) Polyclonal Antibody, Unconjugated (SL55024R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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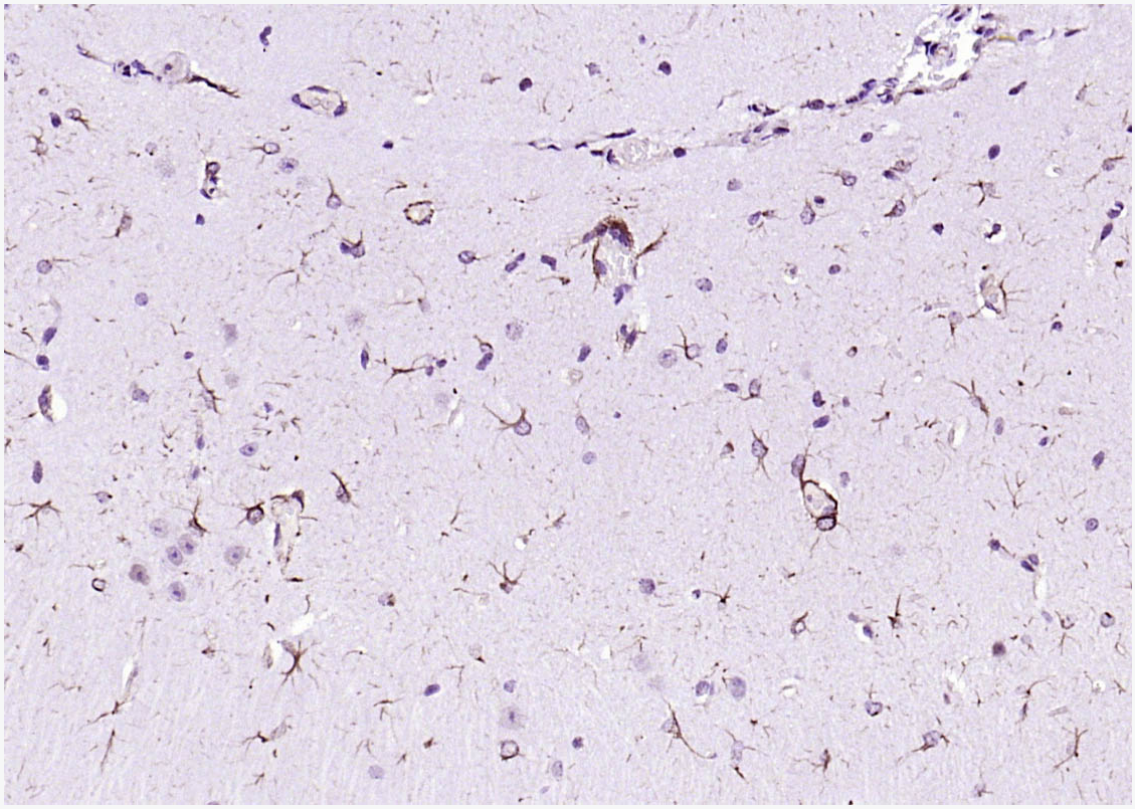

Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Beclin 1) Polyclonal Antibody, Unconjugated (SL55024R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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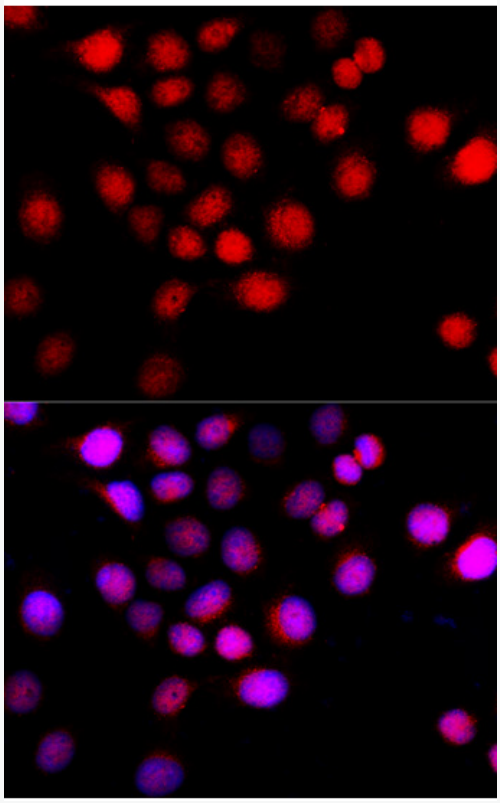

Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (KO Validated)Beclin 1 polyclonal Antibody, Unconjugated (SL55024R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.