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MAP1A Rabbit pAb

Catalog # AP99481

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9BXW4
Other Accession	Q9BXW4
Reactivity	Rat, Human
Predicted	Pig, Mouse, Chicken, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16852
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MAP1A heavy chain
Epitope Specificity	2651-2750/3014
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the MAP1 LC3 family.
SUBUNIT	3 different light chains, LC1, LC2 and LC3, can associate with MAP1A and MAP1B proteins.
Post-translational modifications	Phosphorylated by CSNK1D. LC2 is generated from MAP1A by proteolytic processing.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. There are three isoforms of human LC3 (named MAP1LC3A, MAP1LC3B, and MAP1LC3C), which exhibit different tissue distributions. 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.

Additional Information

Gene ID	440738
Other Names	ATG8J; LC3C; MLP3C_HUMAN; MAP1LC3C; Autophagy-related protein LC3 C; Autophagy-related ubiquitin-like modifier LC3 C; MAP1 light chain 3-like protein 3; Microtubule-associated proteins 1A/1B light chain 3C (MAP1A/MAP1B LC3 C | MAP1A/MAP1B light chain 3 C); microtubule associated protein 1 light chain 3 gamma

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 μg /test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	MAP1LC3C
Function	Ubiquitin-like modifier that plays a crucial role in antibacterial autophagy (xenophagy) through the selective binding of CALCOCO2 (PubMed:23022382). Recruits all ATG8 family members to infecting bacteria such as S.typhimurium (PubMed:23022382). May also play a role in aggrephagy, the macroautophagic degradation of ubiquitinated and aggregated proteins (PubMed:28404643).
Cellular Location	Cytoplasmic vesicle, autophagosome membrane; Lipid-anchor. Endomembrane system; Lipid-anchor. Cytoplasm, cytoskeleton. Note=LC3-II binds to the autophagic membranes.
Tissue Location	Most abundant in placenta, lung and ovary.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.