

LC3A/LC3B Polyclonal Antibody, DyLight™ 488

Catalog NumberPA5-22731

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Amphibian, Dog, Fish, Human, Mouse, Plant, Rat, Zebrafish
Host/Isotope	Rabbit / IgG	Published species	Mouse
Class	Polyclonal	Tested Applications	
Type	Antibody	Dilution *	
Immunogen	A synthetic peptide made to an internal portion of the human LC3 protein sequence (between residues 25-121).	ELISA (ELISA)	Assay-Dependent
		Flow Cytometry (Flow)	Assay-Dependent
Conjugate	DyLight™ 488	Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent
Form	Liquid	Immunohistochemistry (Paraffin) (IHC (P))	1:200-1:400
Concentration	0.78 mg/mL	Western Blot (WB)	1:1,000
Purification	Antigen affinity chromatography	Immunocytochemistry (ICC/IF)	Assay-Dependent
Storage buffer	50mM sodium borate	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Contains	0.05% sodium azide		
Storage Conditions	4° C, store in dark		

Product specific information

The target sequence has 100% sequence homology with xenopus, bovine and zebrafish.

Background/Target Information

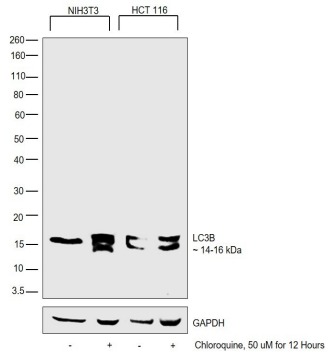
Autophagy is a process of intracellular bulk degradation in which cytoplasmic components, including organelles, are sequestered within double-membrane vesicles that deliver the contents to the lysosome/vacuole for degradation. During macroautophagy, the sequestering vesicles, termed autophagosomes, fuse with the lysosome or vacuole resulting in the delivery of an inner vesicle (autophagic body) into the lumen of the degradative compartment. There are 16 proteins participating in the autophagy pathway in human. The autophagy protein LC3, a mammalian homologue of Atg8, was originally identified as microtubule-associated protein 1 light chain 3. It is a component of both the MAP1A and MAP1B microtubule-binding domains and the heavy-chain independent regulation of LC3 expression might modify MAP1 microtubule-binding activity during development. LC3 is the only known mammalian protein identified that stably associates with the autophagosome membranes. LC3-I is cytosolic and LC3-II is membrane bound and enriched in the autophagic vacuole fraction. The detection of LC3-I to LC3-II conversion is a useful and sensitive marker for distinguishing autophagy in mammalian cells.

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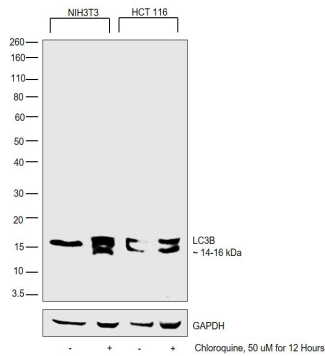
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LC3A/LC3B Antibody (PA5-22731)

Altered expression of proteins upon cell treatment demonstrates antibody specificity. Western blot using Anti-LC3A /LC3B Rabbit Polyclonal Antibody (Product # PA5-22731), shows induced expression in NIH3T3 and HCT 116 cells upon Chloroquine treatment. {TM}



LC3A/LC3B Antibody (PA5-22731) in WB

Western blot was performed using Anti-LC3A/LC3B Rabbit Polyclonal Antibody (Product # PA5-22731) and 14-16 kDa bands corresponding to LC3B were observed across cell lines tested and increased upon Chloroquine treatment. Whole cell extracts (30 µg lysate) of NIH3T3 (Lane 1), NIH3T3 treated with Chloroquine (50uM for 12 Hours) (Lane 2), HCT 116 (Lane 3) and HCT 116 treated with Chloroquine (50uM for 12 Hours) (Lane 4) were electrophoresed using Novex® NuPAGE® 12 % Bis-Tris gel (Product # NP0342BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product #) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1µg/mL) and detected by chemiluminescence with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).

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