

ATG5 Polyclonal Antibody, Biotin

Catalog Number PA5-22854

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Bovine, Fruit fly, Fish, Guinea pig, Human, Mouse, Non-human primate, Pig, Reptile, Rat, Xenopus, Zebrafish
Host/Isotope	Rabbit / IgG		
Class	Polyclonal		
Type	Antibody		
Immunogen	A synthetic peptide made to an N-terminal region (within residues 1-50) of the human ATG5 protein.		
Conjugate	Biotin		
Form	Liquid	Tested Applications	Dilution *
Concentration	0.8 mg/mL	ELISA (ELISA)	Assay-Dependent
Purification	Antigen affinity chromatography	Flow Cytometry (Flow)	Assay-Dependent
Storage buffer	PBS	Immunohistochemistry (Paraffin) (IHC (P))	Assay-Dependent
Contains	no preservative	Immunomicroscopy (IM)	Assay-Dependent
Storage Conditions	4° C, store in dark	Western Blot (WB)	1:500
		Immunocytochemistry (ICC/IF)	Assay-Dependent
* 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.			

Product specific information

In Western Blot, a band is seen ~56 kDa representing the ATG5-ATG12 complex, the molecular weight of human ATG5 is ~33 kDa. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. Suggested positive control: mouse wildtype ES cell lysate.

Background/Target Information

ATG5 (Autophagy Related 5) is an important element for autophagy and may play an important role in the apoptotic process. ATG5 is also involved in other cellular processes that include mitochondrial quality control after oxidative damage, negative regulation of the innate anti-viral immune response, lymphocyte development and proliferation, MHC II antigen presentation, and adipocyte differentiation. Following conjugation to ATG12, the conjugate participates in the formation of autophagosome. ATG5 contributes to autophagic cell death by interacting with Fas-associated protein with death domain (FADD). The ATG5-ATG12 conjugate forms a cup-shaped isolation membrane that then detaches from the membrane immediately before or after autophagosome formation is completed. APG5 may play a role in the apoptotic process, possibly within the modified cytoskeleton. Further, APG5 expression is a relatively late event in the apoptotic process, occurring downstream of caspase activity. The APG5-APG12 conjugate also associates with innate immune response proteins such as RIG-I and VISA (also known as IPS-1), inhibiting type I interferon production and permitting viral replication in host cells. Diseases associated with ATG5 dysfunction include spinocerebellar ataxia.

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