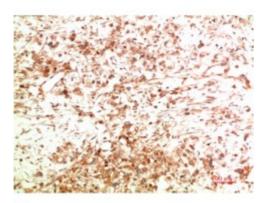


Anti-ATG5 antibody





Description Mouse monoclonal to ATG5.

Model STJ98904

Host Mouse

Reactivity Human, Mouse, Rat

Applications ELISA, WB

Immunogen Recombinant peptide derived from ATG5.

Gene ID 9474

Gene Symbol ATG5

Dilution range WB 1:500-2000ELISA 1:10000-20000

Specificity The antibody detects endogenous ATG5 protein.

Tissue Specificity Ubiquitous. The mRNA is present at similar levels in viable and apoptotic

cells, whereas the protein is dramatically highly expressed in apoptotic cells.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Autophagy protein 5 APG5-like Apoptosis-specific protein

Molecular Weight 55kDa

Clonality Monoclonal

Conjugation Unconjugated

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:589OMIM:604261</u>

Alternative Names Autophagy protein 5 APG5-like Apoptosis-specific protein

Function Involved in autophagic vesicle formation. Conjugation with ATG12, through a

ubiquitin-like conjugating system involving ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3-like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes. Involved in mitochondrial quality control after oxidative damage, and in subsequent cellular longevity. The ATG12-ATG5 conjugate also negatively regulates the innate antiviral immune response by blocking the type I IFN production pathway through direct association with RARRES3 and MAVS. Also plays a role in translation or delivery of incoming viral RNA to the translation apparatus. Plays a critical role in multiple aspects of lymphocyte development and is essential for both B and T lymphocyte survival and proliferation. Required for optimal processing and presentation of antigens for MHC II. Involved in the maintenance of axon morphology and membrane structures, as well as in normal adipocyte differentiation. Promotes primary ciliogenesis through removal of OFD1 from centriolar satellites and degradation of IFT20 via the autophagic pathway.; May play an important role in the apoptotic process, possibly within the modified cytoskeleton. Its expression is a relatively late event in the apoptotic process, occurring downstream of caspase activity. Plays a crucial role in IFN-gamma-induced

autophagic cell death by interacting with FADD.

Cellular Localization Cytoplasm. Preautophagosomal structure membrane. Peripheral membrane

protein. Colocalizes with nonmuscle actin. The conjugate detaches from the membrane immediately before or after autophagosome formation is completed . Localizes also to discrete punctae along the ciliary axoneme and to the base

of the ciliary axoneme.

Post-translational Conjugated to ATG12; which is essential for autophagy, but is not required

for association with isolation membrane.; Acetylated by EP300.

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