

Product Datasheet

ATG7 (1F8) Mouse mAb

Catalog No: AB3626

Reactivity: Human, Mouse, Rat

Isotype: Mouse IgG1

Applications: IHC



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Information

UniProt ID: O95352

All Names: hAGP7; Ubiquitin-activating enzyme E1-like protein; APG7L

Form: Liquid

Storage instructions: Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Storage buffer: pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Purity: Affinity-chromatography

Immunogen: A synthesized peptide

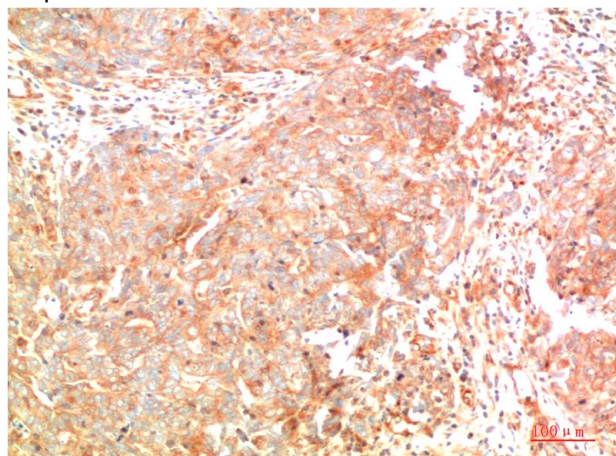
Molecular Wt.: 78kDa

Application

IHC: 1/50-1/100

Background

Swiss-Prot Acc.O95352.E1-like activating enzyme involved in the 2 ubiquitin-like systems required for cytoplasm to vacuole transport (Cvt) and autophagy. Activates ATG12 for its conjugation with ATG5 as well as the ATG8 family proteins for their conjugation with phosphatidylethanolamine. Both systems are needed for the ATG8 association to Cvt vesicles and autophagosomes membranes. Required for autophagic death induced by caspase-8 inhibition. Required for mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production. Modulates p53/TP53 activity to regulate cell cycle and survival during metabolic stress. Plays also a key role in the maintenance of axonal homeostasis, the prevention of axonal degeneration, the maintenance of hematopoietic stem cells, the formation of Paneth cell granules, as well as in adipose differentiation.



Immunohistochemistry analysis of paraffinembedded Human Breast Carcinoma Tissue using ATG7 (1F8) antibody.

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