

Instruction Manual

Catalog Number	PK-AB718-3615
Synonyms	APG7 Antibody; Autophagy protein 7, ATG7
Description	Autophagy, the process of bulk degradation of cellular proteins through an autophagosomal-lysosomal pathway is important for normal growth control and may be defective in tumor cells. It is involved in the preservation of cellular nutrients under starvation conditions as well as the normal turnover of cytosolic components. This process is negatively regulated by TOR (Target of rapamycin) through phosphorylation of autophagy protein APG1. Another member of the autophagy family of proteins is APG7 which was identified in yeast as a ubiquitin-E1-like enzyme; this function is conserved in the mammalian homolog. In mammalian cells, APG7 is essential for autophagy conjugation systems, autophagosome formation, starvation-induced bulk degradation of proteins and organelles. It has been suggested that caspase-8 may alter APG7 levels and thus the APG7 program of autophagic cell death.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	Rabbit polyclonal APG7 antibody was raised against a 17 amino acid peptide from near the carboxy terminus of human APG7 (Genbank accession No. NP_006386).
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Applications	E, WB, ICC, IF INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually.h application have to be determined individually. APG7 antibody can be used for the detection of APG7 by Western blot at 0.5 - 2 µg/mL. Antibody can also be used for immunocytochemistry starting at 10 µg/mL. For immunofluorescence start at 20 µg/mL.
Images	Available upon request.
References	Gozuacik D and Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. <i>Oncogene</i> . 2004; 23:2891-906. Kisen GO, Tessitore L, Costelli P, et al. Reduced autophagic activity in primary rat hepatocellular carcinoma and ascites hepatoma cells. <i>Carcinogenesis</i> 1993; 14:2501-5. Kamada Y, Funakoshi T, Shintani T, et al. Tor-mediated induction of autophagy via Apg1 protein kinase complex. <i>J. Cell. Biol.</i> 2000; 150:1507-13. Mizushima N, Noda T, Yoshimori T, et al. A protein conjugation system essential for autophagy. <i>Nature</i> 1998; 395:395-8.
Images	Available upon request.
Related Products	Blocking Peptide, Cat. No. PK-AB718-3615P Caco-2 Cell Lysate, Cat. No. PK-AB718-1223 APG7 Antibody (NT), Cat. No. PK-AB718-3617; Caspase-8 Antibody (CT), Cat. No. PK-AB718-3473 TOR Antibody, Cat. No. PK-AB718-3485
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