

Autophagy Protein 7 (APG7) Polyclonal Antibody

Product Specifications

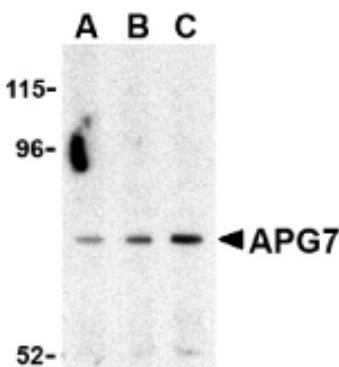
Catalog Number:	905-722-100
Host:	Rabbit
Species Reactivity:	Human, mouse
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: 0.5-1 µg/mL ICC: 10 µg/mL
Predicted m.w.:	~76 kDa
Concentration:	See product label
Purification:	Peptide Affinity
Format:	PBS, 0.02% sodium azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
Immunogen:	Synthetic peptide corresponding to sequence near the carboxy-terminus of human APG7
Related Products:	
VAM-EN003	LAMP2 Monoclonal Antibody
905-723-100	LAMP2 Polyclonal Antibody
905-687-100	mTOR Polyclonal Antibody
905-721-100	Beclin-1 Polyclonal Antibody
905-724-100	PIST Polyclonal Antibody

Background:

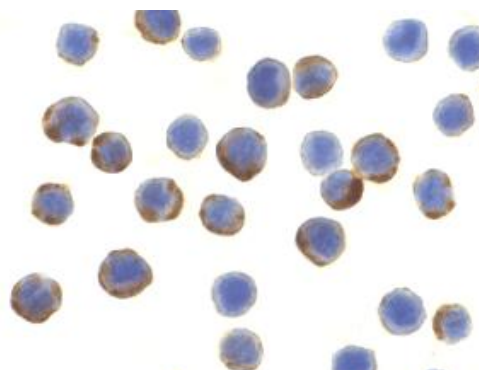
Autophagy, the process of bulk degradation of cellular proteins through an autophagosomal-lysosomal pathway, is important for normal growth control and may be defective in tumor cells. It is involved in the preservation of cellular nutrients under starvation conditions as well as the normal turnover of cytosolic components, and is negatively regulated by TOR (Target of Rapamycin) through phosphorylation of autophagy protein APG1^{1,2}. 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 homolog³. In mammalian cells, APG7 is essential for autophagy conjugation systems, autophagosome formation, and starvation-induced bulk degradation of proteins and organelles⁴. It has been suggested that caspase-8 may alter APG7 levels and thus the APG7 program of autophagic cell death⁵.

References:

1. Gozuacik, D. and Kimchi, A. (2004) *Oncogene* **23**, 2891-2906.
2. Kamada, Y., *et al.* (2000) *J Cell Biol.* **150**, 1507-1513.
3. Mizushima, N., *et al.* (1998) *Nature* **395**, 395-398.
4. Komatsu, M., *et al.* (2005) *J Cell Biol.* **169**, 425-434.
5. Yu, L. *et al.* (2004) *Science* **304**, 1500-1502.



Western blot analysis of Caco-2 cell lysate with APG7 Polyclonal Antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.



Immunocytochemistry of MCF7 cells with APG7 Polyclonal Antibody at 10 µg/mL.

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