

## Product datasheet for **TA383776**

### ATG7 Rabbit Monoclonal Antibody [Clone ID: R09-4E8]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	R09-4E8
Applications:	WB
Recommended Dilution:	WB: 1/2000-1/10000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human Apg7
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 78 kDa; Observed MW: 78 kDa
Gene Name:	autophagy related 7
Database Link:	<a href="#">Entrez Gene 10533 Human O95352</a>



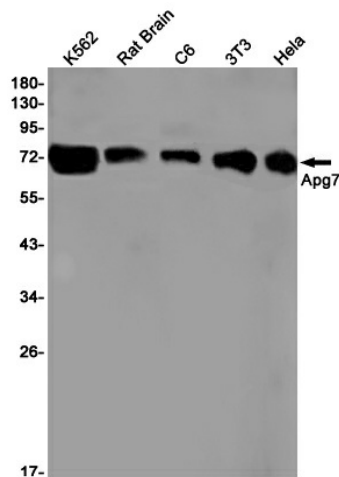
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**Background:**

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. Plays a role in regulating the liver clock and glucose metabolism by mediating the autophagic degradation of CRY1 (clock repressor) in a time-dependent manner .

**Synonyms:**

APG7-LIKE; APG7L; DKFZp434N0735; GSA7; hAGP7

**Product images:**

Western blot analysis of Apg7 in K562, rat Brain, C6, 3T3, HeLa lysates using ATG7 antibody.