

## Product datasheet for **TA301481**

### ATG5 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	Electron Microscopy, ELISA, FC, ICC/IF, IHC, Immunoblotting, IP, Simple Western, WB
Recommended Dilution:	Radioimmunoassay, ELISA, Immunoblotting, Knockout Validated, Knockdown Validated, Electron Microscopy, Flow Cytometry, Western Blot: 1:500, Simple Western: 1:50, Immunocytochemistry/ Immunofluorescence: 1:250, Immunohistochemistry: 1:400, Immunohistochemistry-Paraffin: 1:400, Immunoprecipitation: 1:10 - 1:500, Proximity Ligation Assay
Reactivity:	Human, Mouse, Porcine, Primate, Xenopus, Zebrafish, Cow, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to an N-terminal region (within residues 1-50) of the human ATG5 protein. [Swiss-Prot# Q9H1Y0]
Formulation:	PBS plus 30% glycerol and 0.1% sodium azide
Concentration:	lot specific
Purification:	peptide affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	autophagy related 5
Database Link:	<a href="#">NP_004840</a> <a href="#">Entrez Gene 11793 MouseEntrez Gene 365601 RatEntrez Gene 9474 Human Q9H1Y0</a>



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**Background:**

Autophagy is an important mechanism for nonselective intracellular breakdown whereby cytosol and organelles are encapsulated in vesicles, which are then engulfed and digested by lytic vacuoles/lysosomes. ATG5 is required for autophagy. It conjugates to ATG12 and associates with isolation membrane to form autophagosomes. The conjugate detaches from the membrane immediately before or after autophagosome formation is completed. Conjugation to ATG12 is essential for autophagy, but is not required for association with isolation membrane. ATG5 also plays an important role in the apoptotic process. Its expression is a relatively late event in the apoptotic process, occurring downstream of caspase activity.

**Synonyms:**

APG5; APG5-LIKE; APG5L; ASP; hAPG5

**Protein Families:**

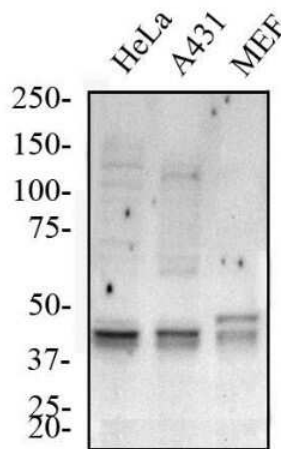
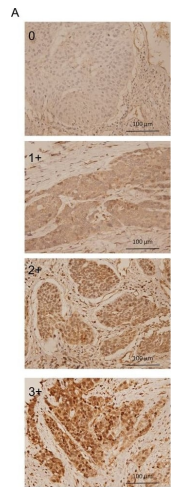
Druggable Genome

**Protein Pathways:**

Regulation of autophagy, RIG-I-like receptor signaling pathway

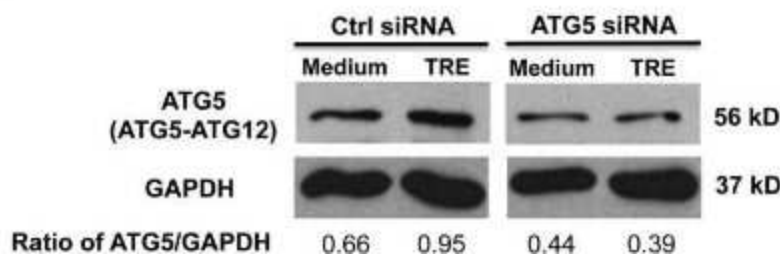
**Product images:**

Simple Western: ATG5 Antibody - BSA Free TA301481 - Simple Western lane view shows a specific band for ATG5 in 0.5 mg/mL of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.

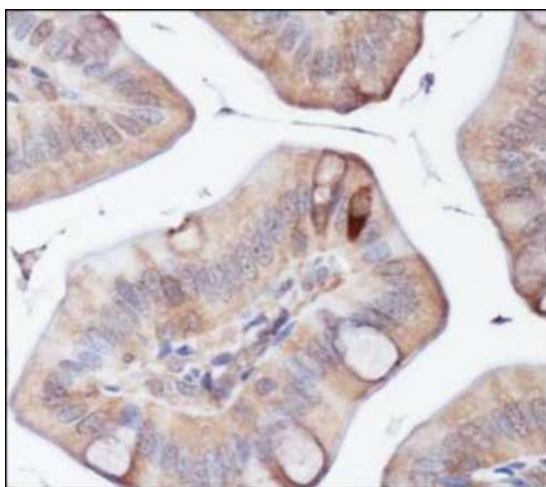


(A) ATG5 expression in ESCC tissue was analyzed by IHC and scored as 0, 1+, 2+, and 3+. (B) Expression level of ATG5 in adjacent non-cancerous (normal) and early-stage ESCC tissues by IHC. (C-D) Kaplan–Meier estimates of OS (C) and PFS (D) by the expression levels of ATG5 (low and high) of adjacent normal tissue from early-stage ESCC patients. MST: median survival time. Low, expression score 0 or 1+; High, expression score 2+ or 3+.

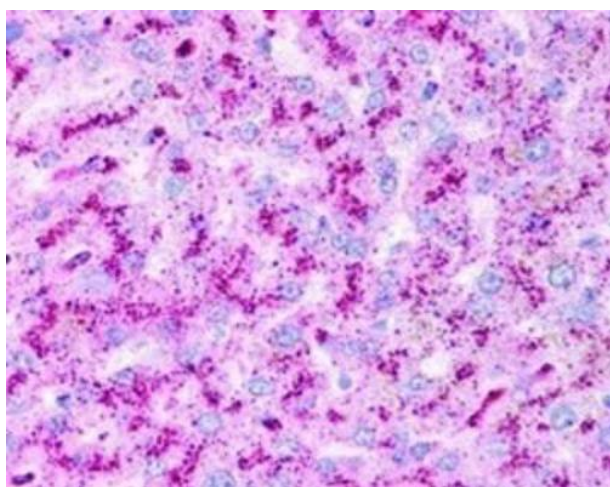
Western Blot: ATG5 Antibody - BSA Free TA301481 - Western blot analysis of total protein from Human HeLa and A431 and Mouse MEF cells. Lysates were separated on a 7.5% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 µg/mL anti-ATG5 in 1% non-fat milk in TBST and detected with an anti-rabbit HRP secondary antibody using chemiluminescence.

**A**


Knockdown Validated: ATG5 Antibody - BSA Free TA301481 - Knockdown of autophagy-related gene 5 (ATG5) inhibits trehalose-induced autophagy in normal human primary airway epithelial cells. Normal human tracheobronchial epithelial cells were transfected with Naito1 chimera RNAi (control siRNA) or ATG5 chimera siRNA (ATG5 siRNA). Twenty-four hours after siRNA transfection, cells were treated with medium or trehalose (TRE, 100 mM) for 48 h. ATG5 protein as examined by Western blot analysis with GAPDH protein used as loading control. The representative Western blot picture was shown from 2 independent experiments with each being performed in triplicate wells.



Immunohistochemistry: ATG5 Antibody - BSA Free TA301481 - Immunohistochemistry analysis of mouse intestine using DAB with hematoxylin counterstain.



Immunohistochemistry: ATG5 Antibody - BSA Free TA301481 - Immunohistochemistry analysis of human liver hepatocytes at 2.5 ug/mL. 40X magnification.