

Rabbit ATG13 Polyclonal Antibody | anti-ATG13 antibody

ATG13 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325913	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

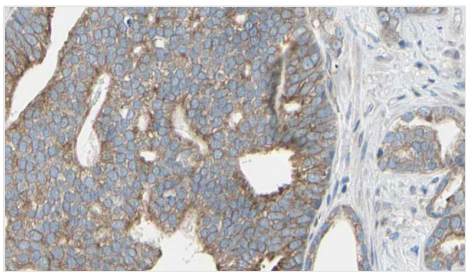
PRODUCT SYNONYMS

ATG13; Polyclonal Antibody; ATG13 Antibody; ATG13 autophagy related 13 homolog (S. cerevisiae); ATG13_HUMAN; Autophagy related 13; Autophagy related protein 13; Autophagy-related protein 13; FLJ20698; KIAA0652; OTTHUMP00000233321; OTTHUMP00000233322; OTTHUMP00000233323; OTTHUMP00000233324; OTTHUMP00000233325; OTTHUMP00000233326; anti-ATG13 antibody

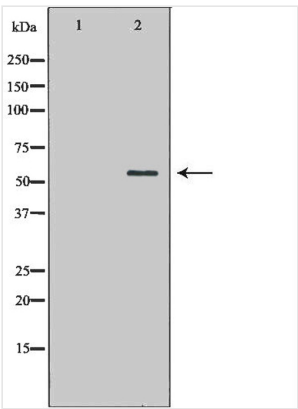
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	ATG13 antibody detects endogenous levels of total ATG13
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	517
Applicable Applications for anti-ATG13 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ATG13
Subcellular Location	Cytoplasm > Cytosol. Preautophagosomal Structure. Under starvation conditions, is localized to punctate structures primarily representing the isolation membrane and the isolation membrane sequesters a portion of the cytoplasm resulting in autophagosome formation.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken
Similarity	Pig (100%), Zebrafish (89%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA325913 at 1/100 staining Human prostate tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of Mouse heart lysate, using ATG13 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-ATG13 antibody

Description: The autophagy-related protein 13 (Atg13) plays an important role in the formation of autophagosomes. Autophagosomes are formed in response to nutrient deprivation and function as the transport vesicles for organelles, proteins, and protein complexes targeted for lysosomes that digest these cargos to produce energy and nutrients. Atg13 is activated by the mTOR pathway and forms a complex with the FIP200 protein. This complex is involved in enhancing the activity of the ULK1 kinase which is required for the formation of autophagosomes. Atg13/FIP200 facilitates the localization of ULK1 to pre-autophagosomes, and subsequently stabilizes ULK1. Autophagy is an important process in development, growth, and cell differentiation, and disruption of this process may contribute to cancer, aging, and neurodegenerative diseases.

Function: Autophagy factor required for autophagosome formation and mitophagy. Target of the TOR kinase signaling pathway that regulates autophagy through the control of the phosphorylation status of ATG13 and ULK1, and the regulation of the ATG13-ULK1-RB1CC1 complex. Through its regulation of ULK1 activity, plays a role in the regulation of the kinase activity of mTORC1 and cell proliferation.

Subunit Structure: Part of a complex consisting of ATG13, ULK1 and RB1CC1 (PubMed:19597335, PubMed:19211835, PubMed:19225151, PubMed:24290141). Interacts with ATG101 (PubMed:19597335, PubMed:19287211, PubMed:26299944). Interacts with ULK1 (via C-terminus) (PubMed:19287211, PubMed:21855797, PubMed:18936157). Interacts with ULK2 (via C-terminus) (PubMed:19225151, PubMed:18936157). Interacts (via the LIR motif) with GABARAP, GABARAPL, GABARAPL2 (PubMed:23043107). Interacts (via the LIR motif) with MAP1LC3A, MAP1LC3B and MAP1LC3C (PubMed:24290141). Interacts with TAB2 and TAB3 (PubMed:21976705). Interacts with C9orf72 (PubMed:27334615).

Post-translational Modifications: Phosphorylated by ULK1, ULK2 and mTOR. Phosphorylation status depends on nutrient-rich conditions; dephosphorylated during starvation or following treatment with rapamycin. ULK1-mediated phosphorylation of ATG13 at Ser-355 is required for efficient clearance of depolarized mitochondria.

Similarity: The LIR motif (LC3-interacting region) is required for the interaction with the ATG8 family proteins GABARAP, GABARAPL, GABARAPL2, and MAP1LC3A. Belongs to the ATG13 family. Metazoan subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	218082953
NCBI GeneID	9776
NCBI Accession #	NP_001136145.1
NCBI GenBank Nucleotide #	NM_001142673.2
UniProt Accession #	O75143; Q53EN6; Q9BRL3; Q9H8B0; B4DFI4; D3DQQ1; D3DQQ2; E9PQZ8
Molecular Weight	Observed: 57 kDa Predicted: 57 kDa
NCBI Official Full Name	autophagy-related protein 13 isoform c

NCBI Official Synonym Full Names	autophagy related 13
NCBI Official Symbol	ATG13
NCBI Official Synonym Symbols	KIAA0652; PARATARG8
NCBI Protein Information	autophagy-related protein 13
UniProt Protein Name	Autophagy-related protein 13
UniProt Gene Name	ATG13
UniProt Synonym Gene Names	KIAA0652

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/atg13-antibody-immunohistochemistry-western-blot-elisa/325913>