

Product datasheet for **TA397435S**

KIAA0652 (ATG13) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, FC, WB
Recommended Dilution:	WB: 1:1000 FC: User Optimized ELISA: 1:25,000-1:175,000
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	This affinity purified antibody was prepared by repeated immunizations with a synthetic peptide corresponding to the region near S318 of ATG13.
Specificity:	This affinity-purified antibody is directed against the phosphorylated form of human ATG13 protein at the pS318 residue. The product was affinity purified from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross adsorbed against the non-phosphorylated form of the immunizing peptide. Reactivity occurs against human ATG13 pS318 protein and the antibody is specific for the phosphorylated form of the protein. Reactivity with non-phosphorylated human ATG13 is minimal by ELISA and western blot. A BLAST analysis was used to suggest cross reactivity with ATG13 from human based on 100% sequence homology with the immunogen. Reactivity against homologues from other sources is not known.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	1.1 mg/mL - lot specific
Conjugation:	Unconjugated
Storage:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Stability:	Expiration date is three (3) months from date of receipt.



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Gene Name: autophagy related 13

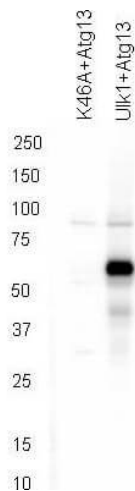
Database Link: [Entrez Gene 9776 Human O75143](#)

Background: ATG13 is a target of the TOR kinase signaling pathway that regulates autophagy through the control of the phosphorylation status of ATG13 and ULK1 through their stable complex, and the regulation of ATG13-ULK1-RB1CC1. ATG13 also forms a stable complex with FIP200. Ulk1 phosphorylates ATG13 on S318 and promotes its release to damaged mitochondria. Autophagy is a normal process in eukaryotes required for turnover of cellular components during starvation and stress. It plays an essential role in cellular differentiation, cell death and aging. Defects in this evolutionarily conserved process may contribute to certain human diseases such as cancer, neurodegenerative diseases, muscular disorders and pathogen infections. ATG13 is one of several ATG genes required for autophagosome formation in mammalian cells. mTOR interacts with this complex in a nutrient dependent manner and phosphorylates Atg13 and ULK1.

Synonyms: rabbit anti-ATG13 pS318 Antibody, ATG-13, ATG 13, Autophagy-related protein 13, KIAA0652

Note: This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 56.6 kDa in size corresponding to human phosphorylated ATG13 protein by western blotting in the appropriate stimulated tissue or cell lysate or extract.

Product images:



Western blot using Rockland's affinity purified anti-ATG13 pS318 antibody shows detection of phosphorylated ATG13 in 293T cells engineered to coexpress Ulk1 and Atg13 (Ulk1 + Atg13). In the left lane was loaded kinase-dead hypophosphorylated Ulk1-K46A mutant + ATG13. The right lane contains the 293T Ulk1 + ATG13 lysate and shows detection at approximately 57 kDa. The antibody was purified and resolved by SDS-PAGE, then transferred to nitrocellulose membrane. The membrane was blocked with 5% Blotto (p/n [B501-0500]) and probed with the primary antibody at 1 µg/mL overnight at 4°C. After washing, the membrane was probed with Goat Anti-Rabbit HRP secondary 1:5000 in detection buffer (p/n MB-070) for 45 minutes at room temperature. In collaboration with Charles Dorsey at Eli Lilly, Indianapolis, IN and John Cleveland at Scripps, Jupiter, FL.