

## Product datasheet for **TA397436S**

### **KIAA0652 (ATG13) Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	ELISA, WB
<b>Recommended Dilution:</b>	<b>WB:</b> 1:1000 <b>ELISA:</b> 1:220,000 - 1:250,000
<b>Reactivity:</b>	Human
<b>Host:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	This affinity purified antibody was prepared by repeated immunizations with a synthetic peptide corresponding to the S318 region of ATG13.
<b>Specificity:</b>	This affinity-purified antibody is directed against human ATG13 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. 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.
<b>Formulation:</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Concentration:</b>	1.24 mg/mL - lot specific
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	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.
<b>Stability:</b>	Expiration date is three (3) months from date of receipt.
<b>Gene Name:</b>	autophagy related 13
<b>Database Link:</b>	<a href="#">Entrez Gene 9776 Human 075143</a>



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**Background:**

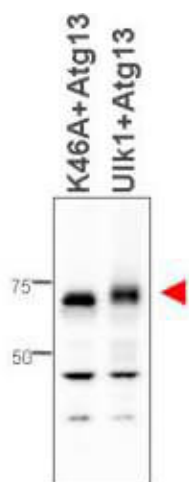
ATG13 is a target of the TOR kinase signaling pathway that regulates autophagy through the control of the phosphorylation status of ATG13 and ULK1 through their stable complex, and the regulation of ATG13-ULK1-RB1CC1. ATG13 also forms a stable complex with FIP200. Ulk1 phosphorylates ATG13 on S318 and 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 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 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 antibody shows detection of ATG13 in 293T cells engineered to coexpress Ulk1 and Atg13 (Ulk1 + Atg13), right lane, but not in the left lane in which was loaded kinase-dead hypophosphorylated Ulk1-K46A mutant + ATG13. Detection is demonstrated 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.