

## Product Information

### ATG13, GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5341**  
Storage Temperature  $-70^{\circ}\text{C}$

Synonym: KIAA0652

#### Product Description

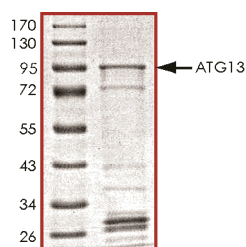
ATG13 is a protein that is part of the autophagy complex, which is the major route by which cytoplasmic contents are delivered to the lysosome for degradation. ATG13 localizes on the autophagic isolation membrane and is essential for autophagosome formation. In mammals, ATG13 interacts with ATG1 (ULK1/2) and FIP200 to form the autophagy. ATG101 can also bind to ATG13 protein, and is important for the stability and basal phosphorylation of ATG13 and ULK1.<sup>1</sup> mTOR can suppress the autophagy process through direct regulation of the ULK1-Atg13-FIP200 complex where mTOR has been shown to phosphorylate ATG13.<sup>2</sup>

Recombinant full-length human ATG13 was expressed in *E. coli* using an N-terminal GST-tag. The gene accession number is NM\_001142673. It is supplied in 50 mM Tris-HCl, pH 7.5, 50 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~96 kDa

The enzymatic activity of this product has not been determined.

**Figure 1.**  
SDS-PAGE Gel of Typical Lot:  
 $\geq 70\%$  (SDS-PAGE, densitometry)



#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

The product ships on dry ice and storage at  $-70^{\circ}\text{C}$  is recommended. After opening, aliquot into smaller quantities and store at  $-70^{\circ}\text{C}$ . Avoid repeated handling and multiple freeze/thaw cycles.

#### References

1. Hosokawa, N. et al., Atg101, a novel mammalian autophagy protein interacting with Atg13. *Autophagy*, **5**(7), 973-979 (2009).
2. Hosokawa, N. et al., Nutrient-dependent mTORC1 association with the ULK1-Atg13-FIP200 complex required for autophagy. *Mol. Biol. Cell.*, **20**(7), 1981-1991 (2009).

RC,MAM,10/12-1

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