

ATG13 Protein

Full length recombinant protein expressed in E.coli

Catalog # A113-30G

Lot # D2519-5

Product Description

Recombinant full-length human ATG13 was expressed expressed in E.coli cells using an N-terminal GST tag. The gene accession number is [NM_001142673](#).

Gene Aliases

KIAA0652

Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 50mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, and 25% glycerol.

Storage and Stability

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

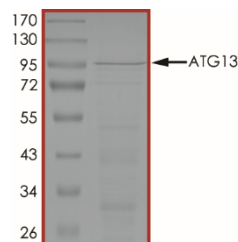
Scientific Background

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 (1). mTOR can suppress the autophagy process through direct regulation of the ULK1-Atg13-FIP200 complex where mTOR has been shown to phosphorylate ATG13 (2).

References

1. Hosokawa, N. et al: Atg101, a novel mammalian autophagy protein interacting with Atg13. *Autophagy*. 2009 Oct;5(7):973-9.
2. Hosokawa, N. et al: Nutrient-dependent mTORC1 association with the ULK1-Atg13-FIP200 complex required for autophagy. *Mol Biol Cell*. 2009 Apr;20(7):1981-91.

Purity



The purity of ATG13 was determined to be **>70%** by densitometry. Approx. MW **96 kDa**.

ATG13 Protein

Full length recombinant protein expressed in E.coli

Catalog #	A113-30G
Lot #	D2519-5
Purity	>70%
Concentration	0.1 µg/µl
Stability	1yr at -70°C from date of shipment
Storage & Shipping	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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FOR IN VITRO RESEARCH PURPOSES ONLY. NOT INTENDED FOR USE IN HUMAN OR ANIMALS.

MATERIAL SAFETY DATA SHEET

Article 1 - Product Identification and Use

Product Name: ATG13 Protein

Catalog # A113-30G

This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.

Manufacturer's Name: SignalChem Pharmaceuticals Inc.
Street Address: 110-13120 Vanier Place
City, Prov. Postal Code: Richmond, BC, V6V 2J2
Fax: 604-232-4601
EMERGENCY PHONE: 604-232-4600

Article 2 - Hazardous Ingredients

NOT AVAILABLE. We are not aware of any hazards associated with this product or its ingredients, but the chemical, physical, and toxicological properties of this product have not been investigated thoroughly. Observe normal laboratory precautions.

Article 3 - Physical Data

This product consists of purified protein in Tris-HCl buffer shipped on dry ice. The physical properties of this product have not been investigated thoroughly.

Article 4 - Fire and Explosion Hazard

NOT APPLICABLE

Article 5 - Reactivity Data

NOT APPLICABLE

Article 6 - Toxicologically Data

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Article 7 - Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

****MULTIPLE COMPONENT SPILL OR LEAK PROCEDURES****

- Wear protective equipment.
 - Absorb on sand or vermiculite and place in closed containers for disposal.
 - Observe all federal, state and local environmental regulations.
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Article 8 - First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
 - In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
 - If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
 - In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.
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Article 9 - Preparation

Prepared By: Jun Yan

Phone #: 1-866-954-6273

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SignalChem shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalog for additional terms and conditions of sale.

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