

Human ATG8 / GABARAPL1 Protein (His Tag)



Sino Biological Inc.

Biological Solution Specialist

Catalog Number: 14549-H07E

General Information

Gene Name Synonym:

GABARAPL1, GEC1

Protein Construction:

A DNA sequence encoding the human GABARAPL1 (Q9H0R8) (Met1-Lys117) was expressed with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human GABARAPL1 consists of 132 amino acids and predicts a molecular mass of 15.9 KDa. It migrates as an approximately 20-22 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

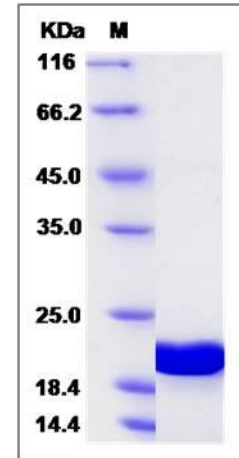
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

ATG8, also known as GABARAPL1, is a ubiquitin-like protein which consists of a 5-stranded β -sheet. ATG8 plays a key role in autophagy, the cellular process mediating the lysosome/vacuole-dependent turnover of macromolecules and organelles. ATG8 is especially important in macroautophagy. It is localized in the cytoplasm and at the PAS under nutrient-rich conditions, but becomes membrane-associated in case of autophagy induction. ATG8 then localizes to the site of autophagosome nucleation, the phagophore-assembly site. The subsequent recruitment of ATG8 and other autophagy-related proteins is believed to trigger vesicle expansion in a concerted manner, presumably by providing the driving force for membrane curvature. ATG8 is also required for a different autophagy-related process called the Cytoplasm-to-vacuole targeting (Cvt) pathway.

References

1. Ohsumi Y. et al., 2004, Genes Cells. 9 (7): 611-8.
2. Geng J. et al., 2008, EMBO Rep. 9 (9): 859-644.
3. Suzuki NN. et al., 2005, Autophagy. 1 (2): 119-26.