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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION



ATG4B (human recombinant)

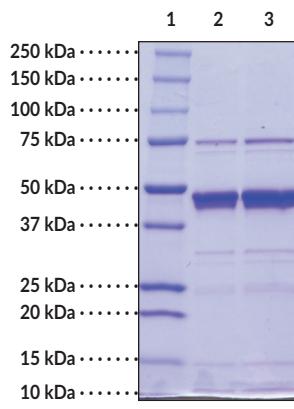
Item No. 25380

Overview and Properties

Synonyms:	AUT-like 1 Cysteine Endopeptidase, Autophagin-1, Autophagy-related Protein 4 Homolog B, Cysteine Protease ATG4B, hAPG4B
Source:	Recombinant N-terminal histidine-tagged ATG4B expressed in <i>E. coli</i>
Amino Acids:	2-393
Uniprot No.:	Q9Y4P1
Molecular Weight:	43.4 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 years
Purity:	batch specific (≥80% estimated by SDS-PAGE)
Supplied in:	50 mM HEPES, pH 8.0, 150 mM sodium chloride, 10% glycerol
Protein Concentration:	batch specific mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: ATG4B (2 µg)
Lane 3: ATG4B (4 µg)

Representative gel image shown; actual purity may vary between each batch.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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PRODUCT INFORMATION



Description

Autophagy-related 4B (ATG4B), also known as autophagin-1, is a cysteine protease and a member of the C54 protease family with dual roles in the progression of autophagy.^{1,2} It catalyzes the irreversible proteolytic cleavage of human homologs of yeast atg8 belonging to the microtubule-associated proteins 1 (MAP1)A/B-light chain 3 (LC3) and the GABA receptor-associated protein (GABARAP) subfamilies, including LC3, GATE16, GABARAP, and ATG8L, to expose a C-terminal glycine residue that is essential to formation of the autophagosome. It also catalyzes the reversible deconjugation of phosphatidylethanolamine from C-terminal glycine lipid-conjugated atg8 homologs.³ ATG4B expression is increased in CD34⁺ chronic myeloid leukemia (CML) stem and progenitor cells and knockdown of ATG4B expression increases accumulation of LC3-II and p62, indicating impaired autophagy, and reduces the viability and inhibits proliferation of CD34⁺ CML cells.⁴ Atg4^{-/-} mice exhibit systemic decreases in basal and induced autophagy as well as increased susceptibility to colitis induced by dextran sodium sulfate (DSS) and pulmonary fibrosis induced by bleomycin (Item No. 13877).^{5,6}

References

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2. Yang, Z., Wilkie-Grantham, R.P., Yanagi, T., et al. ATG4B (Autophagin-1) phosphorylation modulates autophagy. *J. Biol. Chem.* **290**(44), 26549-26561 (2015).
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4. Rothe, K., Lin, H., Lin, K.B., et al. The core autophagy protein ATG4B is a potential biomarker and therapeutic target in CML stem/progenitor cells. *Blood* **123**(23), 3622-3634 (2014).
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