SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

PRODUCT INFORMATION

ATG4B (human recombinant)

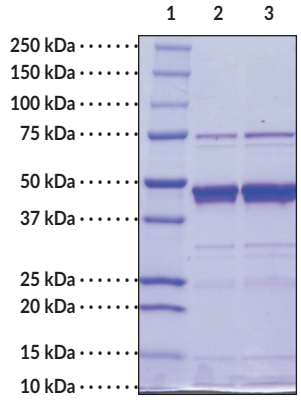
Item No. 25380

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 *E. coli*
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.

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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

1. Li, M., Hou, Y., Wang, J., *et al.* Kinetics comparisons of mammalian Atg4 homologues indicate selective preferences toward diverse Atg8 substrates. *J. Biol. Chem.* **286(9)**, 7327-7338 (2011).
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).
3. Kabeya, Y., Mizushima, N., Yamamoto, A., *et al.* LC3, GABARAP and GATE16 localize to autophagosomal membrane depending on form-II formation. *J. Cell Sci.* **117(Pt 13)**, 2805-2812 (2004).
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).
5. Cabrera, S., Fernández, A.F., Mariño, G., *et al.* ATG4B/autophagin-1 regulates intestinal homeostasis and protects mice from experimental colitis. *Autophagy* **9(8)**, 1188-1200 (2013).
6. Cabrera, S., Maciel, M., Herrera, I., *et al.* Essential role for the ATG4B protease and autophagy in bleomycin-induced pulmonary fibrosis. *Autophagy* **11(4)**, 670-684 (2015).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM