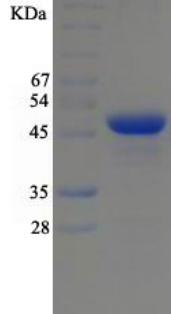


Recombinant Human ATG4A Protein Data Sheet

Catalog #	hRP-T3476-EF011
Size	25 µg
Protein Name	Human cysteine protease
Protein Symbol	ATG4A
Original Source	<i>Homo sapiens</i>
Expression System	<i>E.coli</i>
GenBank Accession #	NM_052936.1
Uniprot Accession #	Q8WYN0
Description	Cysteine protease ATG4A belongs to a member of the autophagin protein family. This protein is also designated as a member of the C-54 family of cysteine proteases. Autophagy is the process by which endogenous proteins and damaged organelles are destroyed intracellularly. Autophagy is postulated to be essential for cell homeostasis and cell remodeling during differentiation, metamorphosis, non-apoptotic cell death, and aging. Reduced levels of autophagy have been described in some malignant tumors, and a role for autophagy in controlling the unregulated cell growth linked to cancer has been proposed. Cysteine protease ATG4A cleaves the C-terminal part of either MAP1LC3, GABARAPL2 or GABARAP, allowing the liberation of form I. A subpopulation of form I is subsequently converted to a smaller form (form II). Form II, with a revealed C-terminal glycine, is considered to be the phosphatidylethanolamine (PE)-conjugated form, and has the capacity for the binding to autophagosomes. Preferred substrate is GABARAPL2 followed by MAP1LC3A and GABARAP.
Application	WB, ELISA, IP, antibody production, protein array
Fusion tag	N-His
Peptide Length	413aa(including fusion tag)
Molecular Weight	47.3kDa(including fusion tag)
pI	5.1
Activity	NA
Storage	Storage buffer: 20mM Tris.Cl, 100mM NaCl, 0.4M Urea, 50% Glycerol, pH8.0. Store at -80°C and avoid repeated freeze-thaw cycles.
	
Reference:	• A high-throughput FRET-based assay for determination of Atg4 activity • Kinetics comparisons of mammalian Atg4 homologues indicate selective preferences toward diverse Atg8 substrates • Reactive oxygen species are essential for autophagy and specifically regulate the activity of Atg4

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