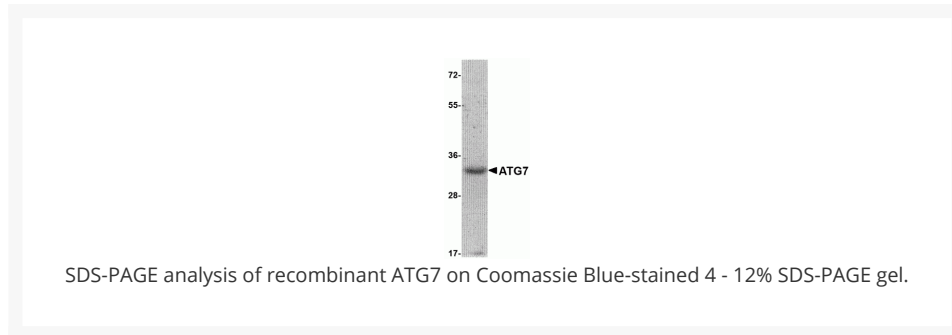




# ATG7 Recombinant Protein

Cat. No.: 95-122



## Ψ Specifications

<b>SPECIES:</b>	Mouse
<b>SOURCE SPECIES:</b>	E. coli
<b>SEQUENCE:</b>	aa 450 - 698
<b>FUSION TAG:</b>	<b>Fusion Partner:</b> C-terminal His-tag
<b>TESTED APPLICATIONS:</b>	ELISA, WB
<b>APPLICATIONS:</b>	This recombinant protein can be used for WB and ELISA. For research use only.
<b>PREDICTED MOLECULAR WEIGHT:</b>	30 kDa (Calculated)

## Ψ Properties

<b>PURITY:</b>	~95%
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	1X PBS containing 10% glycerol
<b>STORAGE CONDITIONS:</b>	Store in working aliquots at -70 °C. Avoid freeze/thaw cycles. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature.

<b>OFFICIAL SYMBOL:</b>	Atg7
<b>ALTERNATE NAMES:</b>	ATG7 Recombinant Protein: Agp7, Apg7l, Atg7l, Gm21553, 1810013K23Rik
<b>ACCESSION NO.:</b>	AAH58597
<b>PROTEIN GI NO.:</b>	37589293
<b>GENE ID:</b>	74244

## Background and References

<b>BACKGROUND:</b>	<p>Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-lysosomal pathway is important for normal growth control and may be defective in tumor cells. It is involved in the preservation of cellular nutrients under starvation conditions as well as the normal turnover of cytosolic components (1,2). This process is negatively regulated by TOR (Target of rapamycin) through phosphorylation of autophagy protein APG1 (3). Another member of the autophagy family of proteins is APG7 which was identified in yeast as a ubiquitin-E1-like enzyme; this function is conserved in the mammalian homolog (4). In mammalian cells, APG7 is essential for autophagy conjugation systems, autophagosome formation, starvation-induced bulk degradation of proteins and organelles (5). It has been suggested that caspase-8 may alter APG7 levels and thus the APG7 program of autophagic cell death (6).</p>
<b>REFERENCES:</b>	<p>1) Gozuacik D and Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. <i>Oncogene</i> . 2004; 23:2891-906.</p> <p>2) Kisen GO, Tessitore L, Costelli P, et al. Reduced autophagic activity in primary rat hepatocellular carcinoma and ascites hepatoma cells. <i>Carcinogenesis</i> 1993; 14:2501-5.</p> <p>3) Kamada Y, Funakoshi T, Shintani T, et al. Tor-mediated induction of autophagy via Apg1 protein kinase complex. <i>J. Cell. Biol.</i> 2000; 150:1507-13.</p> <p>4) Mizushima N, Noda T, Yoshimori T, et al. A protein conjugation system essential for autophagy. <i>Nature</i> 1998; 395:395-8.</p>

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