



# Recombinant Human Ubiquitin-like-conjugating enzyme ATG3(ATG3)

<b>Product Code</b>	CSB-EP002288HU
<b>Relevance</b>	E2 conjugating enzyme required for the cytoplasm to vacuole transport (Cvt), autophagy, and mitochondrial homeostasis. Responsible for the E2-like covalent binding of phosphatidylethanolamine to the C-terminal Gly of ATG8-like proteins (GABARAP, GABARAPL1, GABARAPL2 or MAP1LC3A). The ATG12-ATG5 conjugate plays a role of an E3 and promotes the transfer of ATG8-like proteins from ATG3 to phosphatidylethanolamine (PE). This step is required for the membrane association of ATG8-like proteins. The formation of the ATG8-phosphatidylethanolamine conjugates is essential for autophagy and for the cytoplasm to vacuole transport (Cvt). Preferred substrate is MAP1LC3A. Also acts as an autocatalytic E2-like enzyme, catalyzing the conjugation of ATG12 to itself, ATG12 conjugation to ATG3 playing a role in mitochondrial homeostasis but not in autophagy. ATG7 (E1-like enzyme) facilitates this reaction by forming an E1-E2 complex with ATG3. Promotes primary ciliogenesis by moving OFD1 from centriolar satellites via the autophagic pathway.
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	Q9NT62
<b>Storage Buffer</b>	Tris-based buffer,50% glycerol
<b>Alias</b>	Autophagy-related protein 3 ;APG3-like ;hApg3;Protein PC3-96
<b>Product Type</b>	Recombinant Protein
<b>Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	MQNVINTVKGKALEVAEYLTPVLKESKFKETGVITPEEFVAAGDHLVHHCP TWQWATGEELKVKAYLPTGKQFLVTKNVPCYKRCKQMEYSDELEAIIIEEDDGDG GWVDTYHNTGITGITEAVKEITLENKDNIRLQDCSALCEEEDEDEGEAADMEE YEESSLLETDEATLDRKIVEACKAKTDAGGEDAILQTRTYDLYITYDKYYQTP RLWLFGYDEQRQPLTVEHMYEDISQDHVKKTVTIENHPLPPPMCSVHPCR HAEVMKKIIEETVAEGGGELGVHMYLLIFLKFVQAVIPTIEYDYTRHFTM
<b>Research Area</b>	Apoptosis
<b>Source</b>	E.coli
<b>Gene Names</b>	ATG3
<b>Expression Region</b>	1-314aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

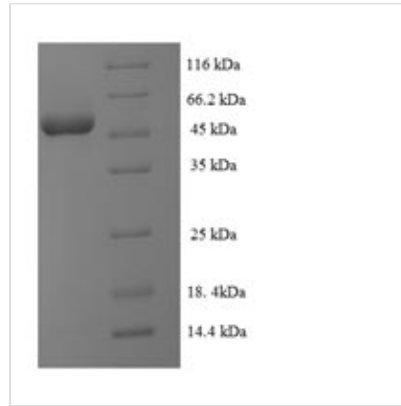


**Tag Info** N-terminal 6xHis-SUMO-tagged

**Mol. Weight** 51.9kDa

**Protein Description** Full Length

**Image**



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.