

## Product datasheet for **KN215079**

### ATG7 Human Gene Knockout Kit (CRISPR)

#### Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	ATG7
Locus ID:	10533
Components:	<p><b>KN215079G1</b>, ATG7 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGCCCTTTTAGTAGTGCCT</p> <p><b>KN215079G2</b>, ATG7 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCGGCAGCTACGGGGGATCC</p> <p><b>KN215079D</b>, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p>

Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet

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TTGAACCCGG GAGGCGGAGG TTGTAGTGAG CCGAGATTGC ACCACTGCAC TCCAGTGCAA CAGAGTGAGA
CTCCATCTCA ATTAATAAAA AAAAAATCA CTGTGTCATG AGGAGAATCA GCTTGACAAC ACAGGCCAAT
TAGGATGGTT TTCAAAGTTG TGTCTTAAGT GAAATAAGCC AGTCACAAAA ACACAAATAC TGTATGATGC
CATTTACATG AAGTAGTCAA ACCTGTATAG ACAGAAAGTA GAATGGTGGG TGCAAGGTCC TGGGGGTAAG
GAAATGGGGA GTTATTGTTT AAAGAGTATA GAGTCCAGT TTTGCAAGT GAAAAAGTTC TGGAGATCTG
TTTCAACAAC TTGTGATTAT ACTTAATATC ACCTAACTGT TTACCTCAA ATAATCAAGA TGGTAAAGTA
TATGTTATGT GTTTCTTACC ACAATCCAAA AAGAAGTTGT GTTCAAGGT AGCCTGTAAA CATCTCATT
CTTTTGTGTT GTTTGAATTA AACTTTATTA CAAATGTTCT TTCTCACCAG GTTTTGCATG GATATGTTAT
TTTGCTGTGT TCTGTTTTGT TTTTAAATAG GCAAGAAATA GAAGAAGCTG AACGAGTATC GGCTGGATGA
AGCTCCCAAG GACATTAAGG GTTATTACTA CAATGGTAGG TGATTGTAAA TTTCATTTTC CATCATCTTC
TGTTATCCTC ACGGTCCTCC AGTATAGTGT CAGCTTTCCT TTAGAAAGAG ACAGCCTTGT CTTTTATAAT
CAGTGCTCTT CACTAGTTTC TATTTTACTT CCTGACTTTT TGATCCCAGT TCATTTTCAT TTATTTTCTC
TTGTTGTGGG GAAAAAGAAA GAGAGTAGTG AAAC TCAAT TATTAATCCA AATAATACCC ATTACTTAGC
ATTGCTGTGG GAAGAGATTG GAAATATTTT TTCCATTGAA TCTTTTTTAT ATTCTTGGCG AATGTCTCAT
ATTCACAAGA GCTCTGTAC ATTCTGCCAT TTATCTATCC ATACATATAT TATCTATGTA GCATAGATAA
TCAGAAATTG GATGGGGCGC CTTGGGCTCA ACAAAGAGAA GAAAACTATT CATAAGCATT TTTGTTATGA
ACGCTGCTAT TTCTGACTTG TCATTGAAAA TGTGATAATG CTTCTGTCCA GGTGACTCTG CTGGGCTGCG
AGCTCGCTTA

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**GE100003**, scramble sequence in pCas-Guide vector



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**Disclaimer:**

These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

**RefSeq:**

[NM\\_001136031](#), [NM\\_001144912](#), [NM\\_006395](#), [NM\\_001349232](#), [NM\\_001349233](#), [NM\\_001349234](#), [NM\\_001349235](#), [NM\\_001349236](#), [NM\\_001349237](#), [NM\\_001349238](#)

**UniProt ID:**

[O95352](#)

**Synonyms:**

APG7-LIKE; APG7L; GSA7

**Summary:**

This gene encodes an E1-like activating enzyme that is essential for autophagy and cytoplasmic to vacuole transport. The encoded protein is also thought to modulate p53-dependent cell cycle pathways during prolonged metabolic stress. It has been associated with multiple functions, including axon membrane trafficking, axonal homeostasis, mitophagy, adipose differentiation, and hematopoietic stem cell maintenance. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]

**Product images:**
