

## Product datasheet for **KN212363**

### Aquaporin 7 (AQP7) 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:** Aquaporin 7  
**Locus ID:** 364  
**Components:** **KN212363G1**, Aquaporin 7 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCCCAGCCTTGTTAGCTTTC  
**KN212363G2**, Aquaporin 7 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: ACAAGAGCCAGTCCTTGCAA  
**KN212363D**, donor DNA containing left and right homologous arms and GFP-puro functional cassette.

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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AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
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 AGGCATCGTG GTGTCACGCT CGTCGTTTGG TATGGCTTCA TTCAGCTCCG GTTCCCAACG ATC

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

**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\\_001170](#), [NM\\_001318156](#), [NM\\_001318157](#), [NM\\_001318158](#), [NR\\_134513](#), [NR\\_134514](#), [NR\\_134515](#)

**UniProt ID:**

[O14520](#)

**Synonyms:**

AQP7L; AQP9; AQPap; GLYCQTL

**Summary:**

This gene encodes a member of the aquaporin family of water-selective membrane channels. The encoded protein localizes to the plasma membrane and allows movement of water, glycerol and urea across cell membranes. This gene is highly expressed in the adipose tissue where the encoded protein facilitates efflux of glycerol. In the proximal straight tubules of kidney, the encoded protein is localized to the apical membrane and prevents excretion of glycerol into urine. The encoded protein is present in spermatids, as well as in the testicular and epididymal spermatozoa suggesting an important role in late spermatogenesis. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms. This gene is located adjacent to a related aquaporin gene on chromosome 9. Multiple pseudogenes of this gene have been identified. [provided by RefSeq, Dec 2015]

Product images:

