

## Product datasheet for **KN408677**

### TMPRSS2 Human Gene Knockout Kit (CRISPR)

#### Product data:

**Product Type:** Knockout Kits (CRISPR)  
**Format:** 2 gRNA vectors, 1 linear donor  
**Donor DNA:** EF1a-GFP-P2A-Puro  
**Symbol:** TMPRSS2  
**Locus ID:** 7113  
**Components:** **KN408677G1**, TMPRSS2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TCATAGTAAGGTCCAATAGC  
**KN408677G2**, TMPRSS2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGATGCACCTCGTAGACAGT  
**KN408677D**, Linear donor DNA containing LoxP-EF1A-tGFP-P2A-Puro-LoxP:  
 The sequence below is cassette sequence only. The linear donor DNA also contains proprietary target sequence.

LoxP-EF1A-tGFP-P2A-Puro-LoxP (2739 bp)

ATAACTTCGT ATAATGTATG CTATACGAAG TTATCGTGAG GCTCCGGTGC CCGTCAGTGG GCAGAGCGCA  
 CATCGCCAC AGTCCCGAG AAGTTGGGG GAGGGTTCGG CAATTGAACC GGTGCCTAGA GAAGGTGGCG  
 CGGGGTAAAC TGGGAAAGTG ATGTCGTGTA CTGGCTCCG CTTTTCCCG AGGGTGGGG AGAACCCTAT  
 ATAAGTGAC TAGTCGCCGTA GAACGTTCTT TTTCCGAACG GGTTCGCCG CAGAACACAG GTAAGTGCCG  
 TGTGTGGTTC CCGCGGGCCT GGCCTCTTTA CGGGTTATGG CCCTTGCGTG CCTTGAATTA CTCCACCTG  
 GCTGCAGTAC GTGATTCTTG ATCCCGAGCT TCGGGTTGGA AGTGGGTGGG AGAGTCCGAG GCCTTGCGCT  
 TAAGGAGCCC CTCGCCTCG TGCTTGAGTT GAGGCCTGGC CTGGGGCTGG GGGCCCGCCG GTGCGAATCT  
 GGTGGCACCT TCGCGCCTGT CTCGCTGCTT TCGATAAGTC TCTAGCCATT TAAAATTTTT GATGACCTGC  
 TGCGACGCTT TTTTTCTGGC AAGATAGTCT TGTAATGCG GGCCAAGATC TGCACACTGG TATTTTCGGT  
 TTTGGGGCCG CGGGCGGCGA CGGGGCCCGT GCGTCCAGC GCACATGTTC GGCGAGGCGG GGCCTGCGAG  
 CGCGGCCACC GAGAATCGGA CGGGGGTAGT CTCAAGCTGG CCGGCCTGCT CTGGTGCCTG GCCTCGCGCC  
 GCCGTGTATC GCCCCGCCCT GGGCGGCAAG GCTGGCCCG TCGGCACCAG TTGCGTGAGC GGAAAGATGG  
 CCGCTTCCCG GCCCTGCTGC AGGGAGCTCA AAATGGAGGA CGCGGCCTC GGGAGAGCGG GCGGGTGAGT  
 CACCCACACA AAGGAAAAG GCCTTCCGT CTCAGCCGT CGTTCATGT GACTCCAGG AGTACCGGGC  
 GCCGTCCAG CACCTCGATT AGTTCTCGAG CTTTTGAGT ACGTCTGCT TAGGTTGGGG GGAGGGGTTT  
 TATGCGATGG AGTTTCCCA CACTGAGTGG GTGGAGACTG AAGTTAGGCC AGCTTGCCAC TTGATGTAAT  
 TCTCCTTGA ATTTGCCCTT TTTGAGTTG GATCTTGGT CATTCTCAAG CCTCAGACAG TGGTTCAAAG  
 TTTTTTCTT CCATTTCAAG TGTCGTGAAT GGAGAGCGAC GAGAGCGGCC TGCCCGCCAT GGAGATCGAG  
 TGCCGCATCA CCGGCACCCT GAACGGCGTG GAGTTCGAGC TGGTGGGCGG CGGAGAGGGC ACCCCCGAGC  
 AGGGCCGCAT GACCAACAAG ATGAAGAGCA CCAAAGGCGC CCTGACCTTC AGCCCTACC TGCTGAGCCA  
 CGTGATGGG TACGGCTTCT ACCACTTCGG CACCTACCC AGCGGTACG AGAACCCCTT CCTGCACGCC  
 ATCAACAACG GCGGCTACAC CAACACCCG ATCGAGAAGT ACGAGGACGG CGGCGTGCT CACGTGAGCT  
 TCAGTACCG CTACGAGGCC GGCCCGGTGA TCGGCGACTT CAAGGTGATG GGCACCGGCT TCCCCGAGGA  
 CAGCGTGATC TTCACCGACA AGATCATCCG CAGCAACGCC ACCGTGGAGC ACCTGCACCC CATGGGCGAT



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AACGATCTGG ATGGCAGCTT CACCCGCACC TTCAGCCTGC GCGACGGCGG CTACTIONACAGC TCCGTGGTGG
ACAGCCACAT GCACTTCAAG AGCGCCATCC ACCCCAGCAT CCTGCAGAAC GGGGGCCCCA TGTTGCCTT
CCGCCGCGTG GAGGAGGATC ACAGCAACAC CGAGCTGGGC ATCGTGGAGT ACCAGCACGC CTTCAAGACC
CCGGATGCAG ATGCCGGTGA AGAAAGAGGA AGCGGAGCTA CTACTIONCAG CCGTCTGAAG CAGGCTGGAG
ACGTGGAGGA GAACCTTGA CCTATGACCG AGTACAAGCC CACGGTGCGC CTCGCCACCC GCGACGACGT
CCCCAGGGCC GTACGCACCC TCGCCGCCGC GTTCGCCGAC TACCCCGCCA CGGCCACAC CGTCGATCCG
GACCGCCACA TCGAGCGGGT CACCGAGCTG CAAGAACTCT TCCTCACGCG CGTCGGGCTC GACATCGGCA
AGGTGTGGGT CGCGGACGAC GCGGCCGCGG TGGCGGTCTG GACCACGCCG GAGAGCGTCG AAGCGGGGGC
GGTGTTCGCC GAGATCGGCC CGCGCATGGC CGAGTTGAGC GGTTCGCCGC TGGCCCGCA GCAACAGATG
GAAGGCCTCC TGGCGCCGCA CCGGCCAAG GAGCCCGCGT GGTTCCTGGC CACCGTCGGC GTCTCGCCG
ACCACCAGGG CAAGGTCTG GGCAGCGCCG TCGTGTCTCC CGGAGTGGAG GCGGCCGAGC GCGCCGGGT
GCCCGCTTC CTGGAGACT CCGCGCCCG CAACCTCCC TTCTACGAGC GGCTCGGCTT CACCGTCACC
GCCGACGTCG AGGTGCCGA AGGACCGCG ACCTGGTCA TGACCCGAA GCCCGGTGCC TGAACCTGT
TTATTGCAGC TTATAATGGT TACAAATAA GCAATAGCAT CACAAATTC ACAAATAAAG CATTTTTTTC
ACTGCATTCT AGTTGTGGT TGTCCAACT CATCAATGTA TCTTAATAAC TTCGTATAAT GTATGTATA CGAAGTTAT
    
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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\\_001135099](#), [NM\\_005656](#)

**UniProt ID:**

[O15393](#)

**Synonyms:**

PP9284; PRSS10

**Summary:**

This gene encodes a protein that belongs to the serine protease family. The encoded protein contains a type II transmembrane domain, a receptor class A domain, a scavenger receptor cysteine-rich domain and a protease domain. Serine proteases are known to be involved in many physiological and pathological processes. This gene was demonstrated to be up-regulated by androgenic hormones in prostate cancer cells and down-regulated in androgen-independent prostate cancer tissue. The protease domain of this protein is thought to be cleaved and secreted into cell media after autocleavage. This protein also facilitates entry of viruses into host cells by proteolytically cleaving and activating viral envelope glycoproteins. Viruses found to use this protein for cell entry include Influenza virus and the human coronaviruses HCoV-229E, MERS-CoV, SARS-CoV and SARS-CoV-2 (COVID-19 virus). Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2020]

Product images:

