

Product datasheet for **KN202477RB**

TTF1 (NKX2-1) Human Gene Knockout Kit (CRISPR)

Product data:

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|---------------|---|
| Product Type: | Knockout Kits (CRISPR) |
| Format: | 2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control |
| Donor DNA: | RFP-BSD |
| Symbol: | TTF1 |
| Locus ID: | 7080 |
| Components: | <p>KN202477G1, TTF1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGTTTCACCTGAGCCTGCCG</p> <p>KN202477G2, TTF1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGAGGCAGTGGGAAGGCGCG</p> <p>KN202477RBD, donor DNA containing left and right homologous arms and RFP-BSD functional cassette.</p> |

Homologous arm and RFP-BSD sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **RFP-BSD in green**; **Right arm in violet**

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AAGGCGAGTT ACATGATCCC CCATGTTGTG CAAAAAAGCG GTTAGCTCCT TCGGTCCTCC GATCGTTGTC
AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCCGGC
ACCGAGTTGC TCTTGCCCGG CGTCAATACG GGATAATACC GCGCCACATA GCAGAATTTT AAAAGTGCTC
ATCATTGGAA AACGTTCTTC GGGGCGAAAA CTCTCAAGGA TCTTACCCTG GTTGAGATCC AGTTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTACCACAG GTTTCTGGGT GAGCAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
TTTCAATATT ATTGAAGCAT TTATCAGGTG TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
AAAATAACA AATAGGGGTT CCGCGCATAT TTCCCGGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTCGGG TCGCGCGTTT CGGTGATGAC
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GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAACGTT AATATTTTGT TAAAATTTCG GTTAAATTTT
TGTTAAATCA GCTCATTTTT TAACCAATAG GCCGAAATCG GCAAAATCCC TTATAATCA AAAGAATAGC
CCGAGATAGG GTTGAGTGTT GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCCACTA CGTGAACCAT CACCAAATC AAGTTTTTTG
GGGTCGAGGT GCCGTAAAGC ACTAAATCGG AACCCATAAG GGAGCCCCCG ATTTAGAGCT TGACGGGGAA
AGCCGGCGAA CGTGCGGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
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TGCTTTGACG TATGCGGTGT GAAATACCGC ACAGATCGCT AAGGAGAAAA TACCGCATCA GGCGCCATTC
GCCATTCAGG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGTATTACG CCAGCTGGCG
AAAGGGGAT GTGCTGCAAG GCGATTAAGT TGGGTAACGC CAGGGTTTTT CCAGTCACGA CGTTGTAATA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACAGG CTGTCGCCGT GCTCATTTGA

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TAACTGCCCG TTATTCATGC GACACCAACA GACAGACGGG CACTCACGCC GCTCCCTGCT CGCGCGCTCC
 CTGAAGCATC AGAGGGGAAA ACAGCGTGGC TCTGGGCTCG GGTGCTGGGG CTGTGATGTC CTCGAAAAGT
 CAGCTCCAGC CCCAGATCCC CGCGTGTCTG GGAGATGGGC GAGGGTCAGG GACACCAGGT TTGTTTCGAGG
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 AGGACTCGGT CACTCCGTT ACGTGTACAT CCAACAAGT CGGCGTTAAG GTAACACCAG AATATTTGGC
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 TCTTGCTGCC GCCGAAAGA GGAAGGGCTG GAAGAGGAG GAGCTTGGCG TAATCATGTT CATAGCTGTT
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 AAGGCGTAA TACGGTTATC CACAGAATCA GGGATAACG CAGGAAAGAA CATGTGAGCA AAAGGCCAGC
 AAAAGGCCAG GAACCGTAAA AAGGCCGCTG TGTGCGGTT TTTCCATAG CTCCGCCCC CTGACGAGCA
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 CCTGGAAGCT CCCTCGTGG CTCTCCTGTT CCGACCTGC CGCTTACCG ATACCTGTCC GCCTTCTCC
 CTTGCGGAAG CGTGGCGCTT TCTCATAGCT CACGCTGTAG GTATCTCAGT TCGGTGAGG TCGTTCGCTC
 CAAGCTGGGC TGTGTGCACG AACCCCGT TCAGCCCGAC CGCTGCGCT TATCCGTAA CTATCGTCTT
 GAGTCCAACC CGGTAAGACA CGACTTATCG CACTGGCAG CAGCCACTGG TAACAGGATT AGCAGAGCGA
 GGTATGTAG CGGTGCTACA GAGTCTTGA AGTGGTGGC TAACTACGG TACACTAGAA GAACAGTATT
 TGTATCTGC GCTCTGCTGA AGCCAGTTAC CTCGGA AAA AGAGTTGGTA GCTCTTGATC CGGCAACAA
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 AAGATCCTT GATCTTTCT ACGGGTCTG ACCTCAGTG GAACGAAAAC TCACGTAAAG GGATTTTGGT
 CATGAGATTA TCAAAAAGGA TCTTACCTA GATCCTTTA AATTA AAAAT GAAGTTTAA ATCAATCTAA
 AGTATATATG AGTAAACTG GTCTGACAGT TACCAATGCT TAATCAGTGA GGCACCTATC TCAGCGATCT
 GTCTATTCG TTCATCCATA GTTGCCTGAC TCCCCTCGT GTAGATAACT ACGATACGGG AGGGCTTACC
 ATCTGGCCCC AGTGTGCAA TGATACCGCG AGAACACGC TCACCGGCTC CAGATTTATC AGCAATAAAC
 CAGCCAGCCG GAAGGGCCGA GCGCAGAAGT GGTCTGCAA CTTTATCCG CTCATCCAG TCTATTAATT
 GTTCCCGGA AGCTAGAGTA AGTAGTTCG CAGTTAATAG TTTGCGCAAC GTTGTGCCA TTGCTACAGG
 CATCGTGTG TCACGCTCGT CGTTTGTGAT GGCTTCATTC AGCTCCGTT CCAACGATC

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_001079668](#), [NM_003317](#)

UniProt ID:

[P43699](#)

Synonyms: BCH; BHC; NK-2; NKX2.1; NKX2A; TEBP; TITF1; TTF-1; TTF1

Summary: This gene encodes a protein initially identified as a thyroid-specific transcription factor. The encoded protein binds to the thyroglobulin promoter and regulates the expression of thyroid-specific genes but has also been shown to regulate the expression of genes involved in morphogenesis. Mutations and deletions in this gene are associated with benign hereditary chorea, choreoathetosis, congenital hypothyroidism, and neonatal respiratory distress, and may be associated with thyroid cancer. Multiple transcript variants encoding different isoforms have been found for this gene. This gene shares the symbol/alias 'TTF1' with another gene, transcription termination factor 1, which plays a role in ribosomal gene transcription. [provided by RefSeq, Feb 2014]

Product images:

