

Product datasheet for **KN213843**

Nesprin 2 (SYNE2) 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:	Nesprin 2
Locus ID:	23224
Components:	<p>KN213843G1, Nesprin 2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TTATAAGGGGTGCTGGACGC</p> <p>KN213843G2, Nesprin 2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CTTACATAGGGTGGTTTATA</p> <p>KN213843D, 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**

```

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 AGTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTACCAGC GTTTCTGGGT GAGCAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
TTTCAATATT ATTGAAGCAT TTATCAGGGT TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
AAAATAAACA AATAGGGGTT CCGCGCACAT TTCCCGGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTCGGG TCGCGGTTT CGGTGATGAC
GGTAAAACC TCTGACACAT GCAGCTCCCG TTGACGGTCA CAGCTTGCT GTAAAGCGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG CGGCATCAGA
GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAACGTT AATATTTTGT TAAAATTCGC 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 AACCCCTAAG GGAGCCCCCG ATTTAGAGCT TGACGGGGAA
AGCCGGCGAA CGTGCGGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
AGCGGTACAG CTGCGCGTAA CCACCACACC CGCCGCGCTT AATGCGCCGC TACAGGGCGC GACTATGGT
TGCTTTGACG TATGCGGTGT GAAATACCGC ACAGATCGCT AAGGAGAAAA TACCGCATCA GGCGCCATTC
GCCATTCAGG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGCTATTACG CCAGCTGGCG
AAAGGGGAT GTGCTGCAAG GCGATTAAGT TGGTAACGC CAGGGTTTTC CCAGTACGA CGTTGTAATA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACAGG CTGTCGCCGT GCTCATTTGA

```



[View online »](#)

TAACTGCCCG TTATTCATGC GACACGGTAA AGGGTGCTGA TGATTTGCCA CAGGAGGGAA AAAACCTTCC
 TTTCTTGAT TTGCAGCTCT AATCCTCATC CTTAGCCCCA TCCCTATCTG CCATGGTGGG TCGGGGAGAG
 CCCTGAGGAG CTTTTGGTT CCCAAGTCCA TCTTGATGTT CACTCTTCCC CTCACCTCTG AGAGGCCTTC
 TGCCATCTTG GTCCCCAGAC CCGGCCTTGC CACTCAGTGT CCCTACCACT CGAGACCCTG GCTCCAAAAC
 GCCACTCATC CCACAGCAA TCATGTTGGT CGTGCTCCGT TGTGTACCCA TCTAGTGAAG GCACAGTGTT
 GCTGAGTTGC ATGACTCATC TCATTCTCTT CTGGGACATA CTGACATTTT GCAAACATGC ATGCTTTGCA
 AGGAAAGCTG CAGAATCAT TTTCACTG TAACCTGATG CCATGTCACC CGTGACCCTG TCAGTAGGAG
 AGAATAGACT GTCGCTTCTG GTCTTTCTGTT TCAGGTAAT CCATTTGCGA TGGCCACTCG TGGCATTGTT
 CCGACAGCCC TTCCTGTCCC GAGCATCACT ACAAGCAAAC TAGCATGGAG AGCGACGAGA GCGGCCTGCC
 CGCCATGGAG ATCGAGTGCC GCATCACCGG CACCCTGAAC GGCCTGGAGT TCGAGCTGGT GGGCGGCGGA
 GAGGGACCC CCGAGCAGGG CCGCATGACC AACAAGATGA AGAGCACCAA AGGCGCCTG ACCTTCAGCC
 CCTACCTGCT GAGCCACGTG ATGGGCTACG GCTTCTACCA CTTGCGCACC TACCCACGG GCTACGAGAA
 CCCCTTCTG CACGCCATCA ACAACGGCG CTACACCAAC ACCCGCATCG AGAAGTACGA GGACGGCGGC
 GTGCTGCACG TGAGCTTACG CTACCGCTAC GAGGCCGCGC GCGTGATCGG CACTTCAAAG GTGATGGCA
 CCGGCTTCCC CGAGGACAGC GTGATCTTCA CCGACAAGAT CATCCGCAGC AACGCCACCG TGGAGCACCT
 GCACCCCATG GCGGATAACG ATCTGGATGG CAGCTTACC CGCACCTTCA GCCTGCGCGA CGGCGGCTAC
 TACAGCTCCG TGGTGGACAG CCACATGCAC TTCAAGAGCG CCATCCACCC CAGCATCCTG CAGAACGGGG
 GCCCATGTT CGCTTCCGC CCGTGGAGG AGGATCACAG CAACACCAGG CTGGGCATCG TGGAGTACCA
 GCACGCCTTC AAGACCCCGG ATGCAGATGC CGGTGAAGAA AGAGTTTAAAG AATTCGATC ATATTCAATA
 ACCCTTAATA TAACTTCGTA TAATGTATGC TATACGAAGT TATTAGGTCT GAAGAGGAGT TTACGTCCAG
 CCAAGCTTAG GATCTCGACC TCGAAATTCT ACCGGTAGG GGAGGCGCTT TTCCCAAGGC AGTCTGGAGC
 ATGCGCTTTA GCAGCCCGC TGGCAGTTG GCGTACACA AGTGGCCTCT GGCCTCGAC ACATTCCACA
 TCCACCGGTA GCGCCAAAC GACTCCGTTT TTTGGTGGCC CTTGCGGCGC ACCTTCTACT CCTCCCTAG
 TCAGGAAGTT CCCCCCGCC CCGCAGCTCG CGTCTGCAAG GACGTGACAA ATGGAAGTAG CAGCTCTCAC
 TAGTCTCTG CAGATGGACA GCACCGCTGA GCAATGGAAG CGGGTAGGCC TTTGGGCGAG CGGCCAATAG
 CAGCTTTGCT CTTGCTTTT CTGGGCTCAG AGGCTGGGAA GGGGTGGGTC CGGGGCGGG CTCAGGGGCG
 GGCTCAGGG CGGGGCGGG GCCCGAAGGT CCTCCGGAG CCCGCGATTC TGCACGCTTC AAAAGCGCAC
 GTCTGCCGCG CTGTTCTCCT CTTCTCATC TCCGGGCTT TCGACCTGCA TCCATCTAGA TCTCGAGCAG
 CTGAAGCTTA CCATGACCGA GTACAAGCCC ACGGTGCGCC TCGCCACCCG CGACGACGTC CCCAGGGCCG
 TACGCACCCT CGCGCCGCG TTCGCGACT ACCCGCCAC GCGCCACACC GTCGATCCGG ACCGCCACAT
 CGAGCGGTC ACCGAGCTGC AAGAACTCTT CCTCACGCGC GTCGGGCTCG ACATCGGCAA GGTGTGGGTC
 GCGGACGACG GCGCCGCGT GCGGTCTGG ACCACGCGCG AGAGCGTCA AGCGGGGCG GTGTTGCGCG
 AGATCGGCC GCGCATGGCC GAGTTGAGCG GTTCCCGGCT GGCCGCGCAG CAACAGATGG AAGGCCTCCT
 GCGCCGCGC CGGCCAAAG AGCCCGCTG GTTCTGGCC ACCGTGCGCG TCTCGCCGA CCACCAGGGC
 AAGGGTCTG GCAGCGCGT CGTGCTCCCC GGAGTGGAG CGGCCGAGCG CGCCGGGGTG CCCGCCTTCC
 TGGAGACCTC CGCGCCAC AACCTCCCT TCTACGAGCG GCTCGGCTT ACCGTACCG CCGACGTCGA
 GGTGCCGAA GGACCGCGCA CCTGGTGCAT GACCCGCAAG CCCGGTGCT GACGCCCGCC CCACGACCCG
 CAGCGCCGA CCGAAAGGAG CGCACGACCC CATGCATCGA TGATATCAGA TCCCCGGAT GCAGAAATTG
 ATGATCTATT AAACAATAA GATGTCCACT AAAATGGAAG TTTTCTGT CATACTTGT TAAGAAGGGT
 GAGAACAGAG TACCTACATT TTGAATGGAA GGATTGGAG TACGGGGTG GGGGTGGGT GGGATTAGAT
 AAATGCCTGC TCTTACTGA AGGCTCTTTA CTATTGCTTT ATGATAATGT TTCATAGTTG GATATCATAA
 TTTAAACAAG CAAAACCAA TTAAGGGCCA GCTATTCTT CCCACTCATG ATCTATAGAT CTATAGATCT
 CTCGTGGGAT CATTGTTTT CTCTTGATTC CCACTTTGTG GTTCTAAGTA CTGTGGTTTC CAAATGTGTC
 AGTTTCATAG CCTGAAGAAC GAGATCAGCA GCCTCTGTT CACATACACT TCATTCTCAG TATTGTTTTG
 CCAAGTTCTA ATTCCATCAG AAGCTGGTCG AGATCCGGAA CCCTTAATAT AACTTCGTAT AATGTATGCT
 ATACGAAGTT ATTAGTCCC TCGAAGAGT TCACTAGCG CGCCAGCCT ATGTCTGTGA GTCATACTTA
 CATTGCAAG AGAGAGAGT TTTGGTGTAA ACTGCGTGA TTCATTCCCC AGGCATATTT TGAGTTGGTT
 TTCTATGTT GACAGTGTCT CTGTTGAGCT GTCCATACTT CATTAGAACC CCGGCAAAAC CGATTAGACT
 TAGAGATAGG TTCTGGCAA AAACCATCTT TCTGTATGTT GGTGTGGTGT AACAGTCATT ATTACTGTCG
 AGTCAGGTGT CTGTGCAAT AGTGAGCAAG CAAGGTGCTG GCTTTCCTGA CTGCTCCTGA GCTCTCAAGC
 CTTTGTCTTT TTGTTGTTGT TGTGGAGACG GAGTCTCATT CTGTCACCCA GGCTGGAGTG CACTGGCACG
 ATCTTGACTT ACTGCAATCT CTGCTCCTG GTTCAAGTG ATTTTCTGC CTCAGCTCC CAAGTAGCTG

CGATTACAGG TGTGCACCAC CATGCCTGGC TAATTTTTGT ATTTTTAGTA GAGATGGGGG TTTCACCATG
 TTGGCCAGGC TGGTCTTGAA CTCCTGACCT CAAGTGATCA CTCTCGCCGG TTGGACTTTA GATCAGAAGG
 GATCTTGCTG CCGCCCGAAA GAGGAAGGGC TGGAAAGAGGA AGGAGCTTGG CGTAATCATG GTCATAGCTG
 TTTCTGTGT GAAATTGTTA TCCGCTCACA ATTCCACACA ACATACGAGC CGGAAGCATA AAGTGTAAG
 CCTGGGGTGC CTAATGAGTG AGCTAACTCA CATTAAATTGC GTTGCCTCA CTGCCCGCTT TCCAGTCGGG
 AAACCTGTGC TGCCAGCTGC ATTAATGAAT CGGCCAACGC GCGGGGAGAG GCGGTTTGGC TATTGGGCGC
 TCTTCCGCTT CCTCGCTCAC TGACTCGCTG CGCTCGGTGC TTCGGCTGCG GCGAGCGGTA TCAGCTCACT
 CAAAGGCGGT AATACGGTTA TCCACAGAAT CAGGGGATAA CGCAGGAAAG AACATGTGAG CAAAAGGCCA
 GCAAAAAGCC AGGAACCGTA AAAAGGCCGC GTTGCTGGCG TTTTCCATA GGCTCCGCC CCCTGACGAG
 CATCACAAAA ATCGACGCTC AAGTCAGAGG TGGCGAAACC CGACAGGACT ATAAAGATAC CAGGCGTTTC
 CCCCTGGAAG CTCCTCGTG CGCTCTCCTG TTCCGACCCT GCCGTTACC GGATACCTGT CCGCTTTTCT
 CCCTTCGGGA AGCGTGGCGC TTTCTCATAG CTCACGCTGT AGGTATCTCA GTTCGGTGTG GGTCTGTCGC
 TCCAAGCTGG GCTGTGTGCA CGAACCCCTC GTTCAGCCCG ACCGCTGCGC CTTATCCGGT AACTATCGTC
 TTGAGTCAA CCCGGTAAGA CACGACTTAT CGCCACTGGC AGCAGCCACT GGTAACAGGA TTAGCAGAGC
 GAGGTATGTA GCGGGTGCTA CAGAGTTCTT GAAGTGGTGG CCTAACTACG GCTACACTAG AAGAACAGTA
 TTTGGTATCT GCCTCTGCT GAAGCCAGTT ACCTTCGGAA AAAGAGTTGG TAGCTCTTGA TCCGGCAAAC
 AAACCACCGC TGGTAGCGGT GGTTTTTTTG TTTGCAAGCA GCAGATTACG CGCAGAAAAA AAGGATCTCA
 AGAAGATCCT TTGATCTTTT CTACGGGGTC TGACGCTCAG TGAACGAAA ACTCACGTTA AGGGATTTTG
 GTCATGAGAT TATCAAAAAG GATCTTCACC TAGATCCTTT TAAATTAATA ATGAAGTTTT AAATCAATCT
 AAAGTATATA TGAGTAACT TGGTCTGACA GTTACCAATG CTTAATCAGT GAGGCACCTA TCTCAGCGAT
 CTGTCTATTT CGTTCATCCA TAGTTGCCTG ACTCCCCGTC GTGTAGATAA CTACGATACG GGAGGGCTTA
 CCATCTGGCC CCAGTGTGC AATGATACCG CGAGAACCAC GCTCACCGGC TCCAGATTTA TCAGCAATAA
 ACCAGCCAGC CGGAAGGGCC GAGCGCAGAA GTGGTCCTGC AACTTTATCC GCCTCCATCC AGTCTATTAA
 TTGTTGCCGG GAAGCTAGAG TAAGTAGTTC GCCAGTTAAT AGTTTGCACA ACGTTGTTGC CATTGCTACA
 GGCATCGTGG TGTCACGCTC GTCGTTTGGT ATGGCTTCAT TCAGCTCCGG TTCCCAACGA TC

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_015180](#), [NM_182910](#), [NM_182912](#), [NM_182913](#), [NM_182914](#)

UniProt ID:

[Q8WXH0](#)

Synonyms:

EDMD5; Nesp2; Nesprin-2; NUA; NUANCE; SYNE-2; TROPH

Summary:

The protein encoded by this gene is a nuclear outer membrane protein that binds cytoplasmic F-actin. This binding tethers the nucleus to the cytoskeleton and aids in the maintenance of the structural integrity of the nucleus. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2009]

Product images:

