

Product datasheet for RC223193

C19orf46 (SYNE4) (NM_001039876) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	C19orf46 (SYNE4) (NM_001039876) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	C19orf46
Synonyms:	C19orf46; DFNB76; KASH4; Nesp4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC223193 representing NM_001039876 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGCCCTGTCCCTGCCTCTGGGCCCTAGACTTGGCTCAGAGCCCTCAACCACCACCGGGAGCACCTA
GAGAGGCGGACATTGTTGGATGCACCGTCTGCCCGCGTCCGGAGAGGAGACACGAGCCAGAGCAGGC
CCAGACCTGGGACAGGACTCCTGGGCCCTCCTGAGCACTTCCAGGGTGGGCCAAGGGCAATGAGCCT
GCCGCTACCCCCGAGATGGTCAACACCTCTTCTACGAGGACCCAGCTGGGGCAAACACTGTGAGC
ACCCATTCTGGCCTGGAGTACTAGAGGCTGAGCAGAACAGCCTGCACCTGTGCCTGTGGGGCTGGG
CCGCCGCTGCAGGACCTGGAGCAAGGCCTGGGGCACTGGGCATTGGCCAGAGTGGGATGGTGCAGCTG
CAGGCCCTCCAGGTGGACCTACGAGGGGCACTGAGCGTGTGGAGGCGCTGCTAGCGTTTGGTGGGGG
TGGCACAGCGGAGTGGAGCCAGGGCCTGGGAGCAGATCCTGCGGGCCCTGGGAGCTTACCG
AGACTCCATCTTCCGGCGGCTCTGGCAGCTGCAGGCCAGCTGGTGCAGCTACAGCCTGGTGTTCGAGGAG
GCCAACACGCTGGACCAGGACTTGGAGGTCGAGGGAGACTCGGACTGGCCAGGACCTGGTGGGGTCTGGG
GGCCCTGGGACCCAGTAGCCTCCCACTTCCACAGAGTTGGAGTGGGATCCGGCGGGGGACATTGGGGG
CCTTGGGCCCTTGGGACAAAAGACAGCCCGGACACTAGGAGTGCCTGTGAGCTGTGTGGCCAGAGGGGG
CCCCAGGCGAGGGACAAGGCCTTGGAGGAAGCAGACACCTCTCACTCCGACAGGACATGTGGAGTCTG
GCCTCGGCCACCAGAAACGCTTAGCACGTCAACAAAGACTCCCTGCTCCGGAAGCCTCAGGACAAGAA
GAGGCAAGCATCTCCTCATCTCCAGGATGTGAGGCTGGAGGGGAATCCAGGGGCCCCGATCCTGCATCC
AGGCAGCCTCTGACCTTCTCCTATCCTCTTCTCCTCTTCTCCTCCTCCTGGTGGGTGCCATGTTTCTCC
TGCCCGCGTCAGGAGGCCCTGCTGCTCATGCCGAATACCCAGGACACCTACCTGGTGTCTCAGCTA
TGTCATGGTCTTCCCCAGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC223193 representing NM_001039876
Red=Cloning site Green=Tags(s)

MALSLPLGPRLGSEPLNHPGAPREADIVGCTVCPASGEESTSPEQAQTLGQDSLGPPEHFQGGPRGNEP
 AAHPPRWSTPSSYEDPAGGKHCEHPISGLEVLAEQNSLHLCLLGLGRRLQDLEQLGHWALAQSGMVQL
 QALQVDLRGAAERVEALLAFGEGLAQRSEPRAAALEQILRALGAYRDSIFRRLWQLQAQLVSYSLVFEE
 ANTLDDQDLEVEGSDWPGPGVWGPWAPSSLPTSTELEWDPAGDIGGLGPLGQKARTLGVPCELCGQRG
 PQGRGQGLEEADTSHSRQDMLESLGHQKRLARHQHSLLRKPKQDKKRQASPHLQDVRLEGNP GAPDPAS
 RQPLTFLLILFLFLLLVGMFLLPASGGPCCSHARIPRTPYL VLSYVNLPPV

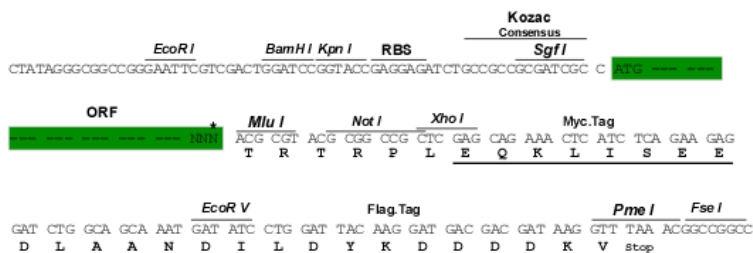
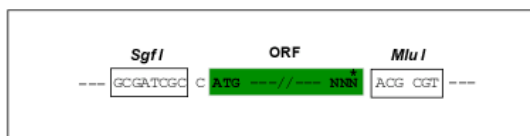
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1121_c01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001039876

ORF Size: 1212 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001039876.3](#)

RefSeq Size: 1541 bp

RefSeq ORF: 1215 bp

Locus ID: 163183

UniProt ID: [Q8N205](#)

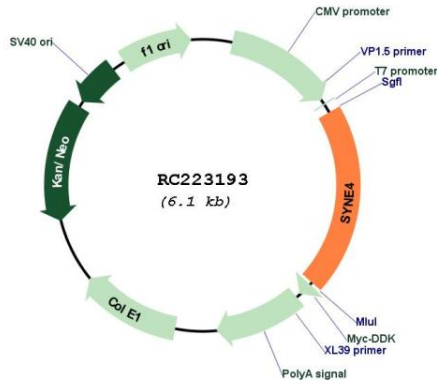
Cytogenetics: 19q13.12

Protein Families: Transmembrane

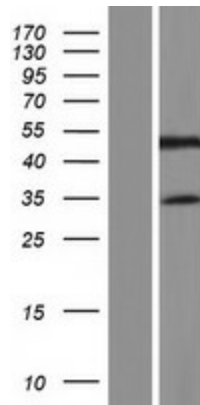
MW: 43.3 kDa

Gene Summary: This gene is a member of the nesprin family of genes, that encode KASH (Klarsicht, Anc-1, Syne Homology) domain-containing proteins. In addition to the KASH domain, this protein also contains a coiled-coil and leucine zipper region, a spectrin repeat, and a kinesin-1 binding region. This protein localizes to the outer nuclear membrane, and is part of the linker of nucleoskeleton and cytoskeleton (LINC) complex in the nuclear envelope. LINC complexes are formed by SUN (Sad1, UNC-84)-KASH pairs, and are thought to mechanically couple nuclear components to the cytoskeleton. Mutations in this gene have been associated with progressive high-frequency hearing loss. The absence of this protein in mice also caused hearing loss, and changes in hair cell morphology in the ears. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2015]

Product images:



Circular map for RC223193



Western blot validation of overexpression lysate (Cat# [LY421842]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223193 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).