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Product datasheet for RC201786

Nucleobindin 1 (NUCB1) (NM_006184) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nucleobindin 1 (NUCB1) (NM_006184) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nucleobindin 1
Synonyms:	CALNUC; NUC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC201786 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCTCCCTCTGGGCCCCGAGGAACCCTCCTTCTGTTGCCGCTGCTGCTGCTGCTCCTGCTTCGCGCCG
TGCTGGCTGTCCCCCTGGAGCGAGGGGCGCCCAACAAGGAGGAGACCCCTGCGACTGAGAGTCCCGACAC
AGGCCTGTACTACCACCGGTACCTCCAGGAGGTCATCGATGTACTGGAGACGGATGGGCATTTCCGAGAG
AAGCTGCAGGCTGCCAATGCGGAGGACATCAAGAGCGGGAAGCTGAGCCGAGAGCTGGACTTTGTCAGCC
ACCACGTCCGCACCAAGCTGGATGAGCTCAAGCGACAGGAGGTGTCACGGCTGCGGATGCTGCTCAAGGC
CAAGATGGACGCCGAGCAGGATCCCAATGTACAGGTGGATCATCTGAATCTCCTGAAACAGTTTGAACAC
CTGGACCCTCAGAACCAGCATACATTCGAGGCCCGCGACCTGGAGCTGCTGATCCAGACGGCCACCCGGG
ACCTTGCCCAGTACGACGCAGCCCATCATGAAGAGTTCAAGCGCTACGAGATGCTTAAGGAACACGAGAG
ACGGCGTTATCTGGAGTCACTGGGAGAGGAGCAGAGAAAGGAGGCGGAGAGGAAGCTGGAAGAGCAACAG
CGCCGGCACCGCGAGCACCCTAAAGTCAACGTGCCTGGCAGCCAAGCCCAGTTGAAGGAGGTGTGGGAGG
AGCTGGATGGACTGGACCCCAACAGGTTTAACCCCAAGACCTTCTTCATACTGCATGATATCAACAGTGA
TGGTGTCCTGGATGAGCAGGAGCTGGAGGCACTCTTCACCAAGGAGCTGGAGAAAGTGTACGACCCAAAG
AATGAGGAGGACGACATGCGGGAGATGGAGGAGGAGCGACTGCGCATGCGGGAGCATGTGATGAAGAATG
TGGACACCAACCAGGACCGCCTCGTGACCCTGGAGGAGTTCCTCGCATCCACTCAGAGGAAGGAGTTTGG
GGACACCGGGGAGGGCTGGGAGACAGTGGAGATGCACCCTGCCTACACCGAGGAAGAGCTGAGGCGCTTT
GAAGAGGAGCTGGCTGCCCGGGAGGCAGAGCTGAATGCCAAGGCCCAGCGCCTCAGCCAGGAGACAGAGG
CTCTAGGGCGGTCCCAGGGCCGCCTGGAGGCCCAGAAGAGAGAGCTGCAGCAGGCTGTGCTGCACATGGA
GCAGCGGAAGCAGCAGCAGCAGCAGCAGCAAGGCCACAAGGCCCCGGCTGCCCACCCTGAGGGGCAGCTC
AAGTTCCACCCAGACACAGACGATGTACCTGTCCCAGCTCCAGCCGGTGACCAGAAGGAGGTGGACACTT
CAGAAAAGAAACTTCTCGAGCGGCTCCCTGAGGTTGAGGTGCCCCAGCATCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201786 protein sequence
Red=Cloning site Green=Tags(s)

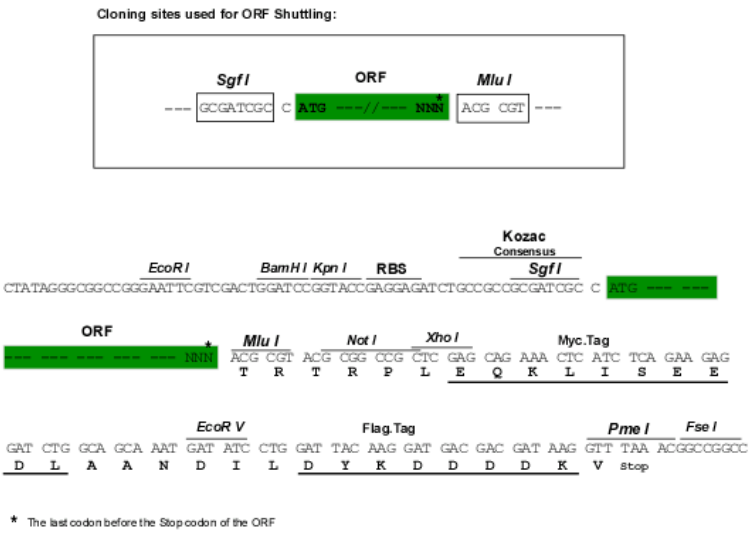
MPPSGPRGTLLLLPLLLLLLLRAVLAVPLERGAPNKEETPATESPDTGLYYHRYLQEVIDVLETDGHFRE
KLQAANAEDIKSGKLSRELDFVSHHVRTKLDELKRQEVSRLRMLLKAKMDAEQDPNVQVDHLNLLKQFEH
LDPQNQHTFEARDLELLIQTATRDLAQYDAAHHEEFKRYEMLKEHERRRYLESLGEEQRKEAERKLEEQQ
RRHREHPKVNVPGSQAQLKEVWEELDGLDPNRFNPKTFFILHDINSDGVLDEQELEALFTKELEKVYDPK
NEEDDMREMEEERLRMREHVMKNVDTNQDRLVTLEEFLASTQRKEFGDTGEGWETVEMHPAYTEEELRRF
EEELAAREAELNAKAQRLSQETEALGRSQGRLEAQKRELQQAVLHMEQRKQQQQQQQGHKAPAAHPEGQL
KFHPDTDDVPVPAPAGDQKEVDTSEKKLLERLPEVEVPQHL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6376_d06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006184

ORF Size: 1383 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_006184.6

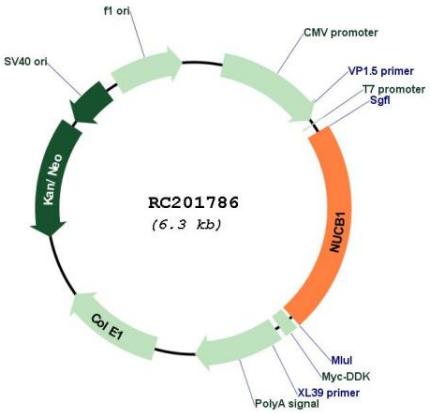
RefSeq Size: 2585 bp

RefSeq ORF: 1386 bp

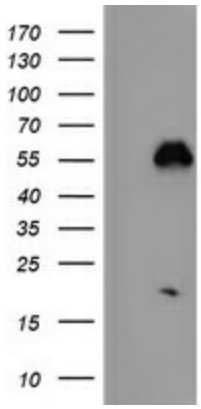
Locus ID: 4924

UniProt ID:	Q02818
Cytogenetics:	19q13.33
Domains:	EFh
MW:	53.9 kDa
Gene Summary:	This gene encodes a member of a small calcium-binding EF-hand protein family. The encoded protein is thought to have a key role in Golgi calcium homeostasis and Ca(2+)-regulated signal transduction events. [provided by RefSeq, Jun 2010]

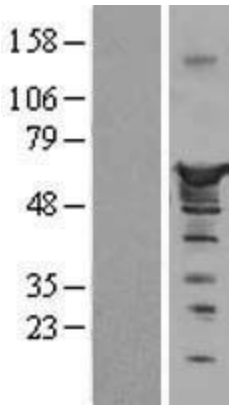
Product images:



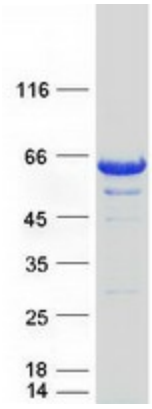
Circular map for RC201786



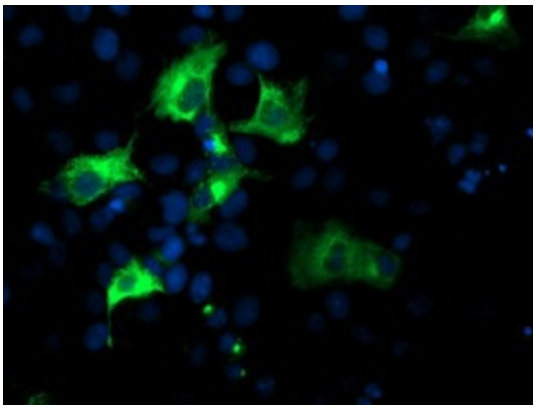
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NUCB1 (Cat# RC201786, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NUCB1 (Cat# [TA503868]). Positive lysates [LY416822] (100ug) and [LC416822] (20ug) can be purchased separately from OriGene.



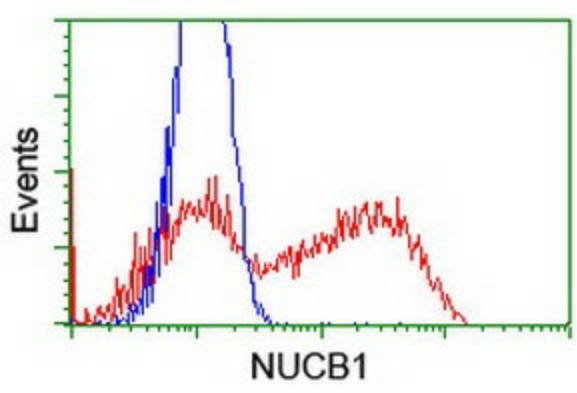
Western blot validation of overexpression lysate (Cat# [LY416822]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201786 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NUCB1 protein (Cat# [TP301786]). The protein was produced from HEK293T cells transfected with NUCB1 cDNA clone (Cat# RC201786) using MegaTran 2.0 (Cat# [TT210002]).



Anti-NUCB1 mouse monoclonal antibody ([TA503868]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY NUCB1 (RC201786).



HEK293T cells transfected with either RC201786 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-NUCB1 antibody ([TA503868]), and then analyzed by flow cytometry.