

Product datasheet for **RC200585**

p8 (NUPR1) (NM_012385) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: p8 (NUPR1) (NM_012385) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: p8
Synonyms: COM1; P8
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC200585 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCCACCTTCCCACCAGCAACCAGCGCCCCCAGCAGCCCCAGGCCCGGAGGACGAGGACTCCAGCC
 TGGATGAATCTGACCTCTATAGCCTGGCCATTCTACCTCGGAGGTGGAGGCCGAAAGGTCGCACCAA
 GAGAGAAGCTGCTGCCAACCAACCGCCCCAGCCCTGGCGGCACGAGAGGAACTGGTGACCAAGCTG
 CAGAATTCAGAGAGGAAGAAGCGAGGGGCACGGCGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200585 protein sequence
 Red=Cloning site Green=Tags(s)
 MATFPPATSAPQPPGPEDEDSSLDLSDLYSLAHSYLGGGGRKGRKREAAANTNRSPGGHERKLVTKL
 QNSERKKRGARR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6129_e03.zip

Restriction Sites: Sgfl-MluI



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Cloning Scheme:



ACCN: NM_012385

ORF Size: 246 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_012385.3](#)

RefSeq Size: 884 bp

RefSeq ORF: 249 bp

Locus ID: 26471

UniProt ID: [O60356](#)

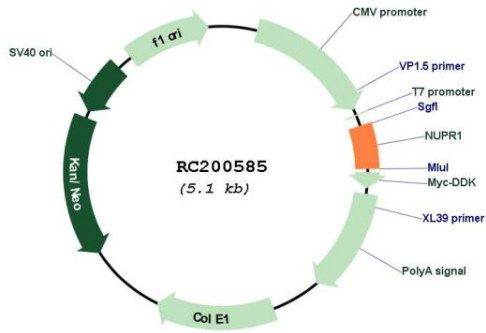
Cytogenetics: 16p11.2

Protein Families: Druggable Genome

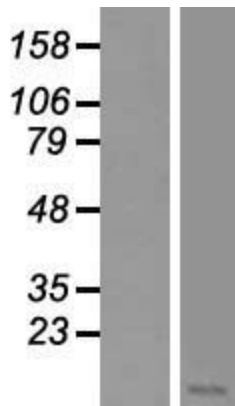
MW: 8.9 kDa

Gene Summary: Transcription regulator that converts stress signals into a program of gene expression that empowers cells with resistance to the stress induced by a change in their microenvironment. Thereby participates in regulation of many process namely cell-cycle, apoptosis, autophagy and DNA repair responses (PubMed:16478804, PubMed:19650074, PubMed:16300740, PubMed:19723804, PubMed:11056169, PubMed:22858377, PubMed:11940591, PubMed:18690848, PubMed:22565310, PubMed:20181828, PubMed:30451898). Controls cell cycle progression and protects cells from genotoxic stress induced by doxorubicin through the complex formation with TP53 and EP300 that binds CDKN1A promoter leading to transcriptional induction of CDKN1A (PubMed:18690848). Protects pancreatic cancer cells from stress-induced cell death by binding the RELB promoter and activating its transcription, leading to IER3 transactivation (PubMed:22565310). Negatively regulates apoptosis through interaction with PTMA (PubMed:16478804). Inhibits autophagy-induced apoptosis in cardiac cells through FOXO3 interaction, inducing cytoplasmic translocation of FOXO3 thereby preventing the FOXO3 association with the pro-autophagic BNIP3 promoter (PubMed:20181828). Inhibits cell growth and facilitates programmed cell death by apoptosis after adriamycin-induced DNA damage through transactivation of TP53 (By similarity). Regulates methamphetamine-induced apoptosis and autophagy through DDIT3-mediated endoplasmic reticulum stress pathway (By similarity). Participates to DNA repair following gamma-irradiation by facilitating DNA access of the transcription machinery through interaction with MSL1 leading to inhibition of histone H4' Lys-16' acetylation (H4K16ac) (PubMed:19650074). Coactivator of PAX2 transcription factor activity, both by recruiting EP300 to increase PAX2 transcription factor activity and by binding PAXIP1 to suppress PAXIP1-induced inhibition on PAX2 (PubMed:11940591). Positively regulates cell cycle progression through interaction with COPS5 inducing cytoplasmic translocation of CDKN1B leading to the CDKN1B degradation (PubMed:16300740). Coordinates, through its interaction with EP300, the association of MYOD1, EP300 and DDX5 to the MYOG promoter, leading to inhibition of cell-cycle progression and myogenic differentiation promotion (PubMed:19723804). Negatively regulates beta cell proliferation via inhibition of cell-cycle regulatory genes expression through the suppression of their promoter activities (By similarity). Also required for LHB expression and ovarian maturation (By similarity). Exacerbates CNS inflammation and demyelination upon cuprizone treatment (By similarity). [UniProtKB/Swiss-Prot Function]

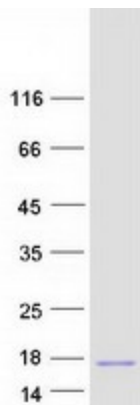
Product images:



Circular map for RC200585



Western blot validation of overexpression lysate (Cat# [LY415825]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200585 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NUPR1 protein (Cat# [TP300585]). The protein was produced from HEK293T cells transfected with NUPR1 cDNA clone (Cat# RC200585) using MegaTran 2.0 (Cat# [TT210002]).