

## Product datasheet for **RC210458**

### Nucleophosmin (NPM1) (NM\_001037738) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | Nucleophosmin (NPM1) (NM_001037738) Human Tagged ORF Clone        |
| Tag:                      | Myc-DDK   |
| Symbol:                   | Nucleophosmin   |
| Synonyms:                 | B23; NPM  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)  |
| E. coli Selection:        | Kanamycin (25 ug/mL)  |
| ORF Nucleotide Sequence:  | >RC210458 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAAGATTCGATGGACATGGACATGAGCCCCCTGAGGCCCCAGAACTATCTTTTCGGTTGTGAACTAA  
AGGCCGACAAAGATTATCACTTTAAGGTGGATAATGATGAAAATGAGCACCAGTTATCTTTAAGAACGGT  
CAGTTTAGGGCTGGTGCAAAGGATGAGTTGCACATTGTTGAAGCAGAGGCAATGAATTACGAAGGCAGT  
CCAATTAAGTAACACTGGCAACTTTGAAAATGTCTGTACAGCCAACGGTTTCCCTTGGGGCTTTGAAA  
TAACACCACAGTGGTCTTAAGGTTGAAGTGTGGTTCAGGGCCAGTGCATATTAGTGGACAGCACTTAGT  
AGCTGTGGAGGAAGATGCAGAGTCAGAAGATGAAGAGGAGGAGGATGTGAACTCTTAAGTATATCTGGA  
AAGCGGTCTGCCCTGGAGGTGGTAGCAAGGTTCCACAGAAAAAGTAAAACTTGCTGCTGATGAAGATG  
ATGACGATGATGATGAAGAGGATGATGATGAAGATGATGATGATGATGATTTTTGATGATGAGGAAGCTGA  
AGAAAAAGCGCCAGTGAAGAAATCTATACGAGATACTCCAGCCAAAAATGCACAAAAGTCAAATCAGAA  
GGAAAAGACTCAAACCATCATCAACCAAGATCAAAGGACAAGAATCCTTCAAGAAACAGGAAAAAA  
CTCCTAAAACACCAAAAGGACCTAGTTCTGTAGAAGACATTAAGCAAAAATGCAAGCAAGTATAGAAAA  
AGCGCAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC210458 protein sequence  
Red=Cloning site Green=Tags(s)

MEDSMDMDMSPLRPQNYLFGCELKADKDYHFKVDNENEHQLSLRTVSLGAGAKDELHIVEAEAMNYEGS  
 PIKVTLATLKMSVQPTVSLGGFEITPPVVLRLKCGSGPVHISGQHLVAVEEDAEESEDEEEEDVKLLSISG  
 KRSAPGGGSKVPQKKVLAADEDDDDDDEEDDDDDDDDFDDEEAEEKAPVKKSIRDTPAKNAQKSNQN  
 GKDSKPSSTPRSKGQESFKKQEKTPKTPKGPSSVEDIKAKMQASIEKAH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6555\\_e03.zip](https://cdn.origene.com/chromatograms/mk6555_e03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001037738

**ORF Size:** 777 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\\_001037738.3](#)

**RefSeq Size:** 1347 bp

**RefSeq ORF:** 780 bp

**Locus ID:** 4869

**UniProt ID:** [P06748](#)

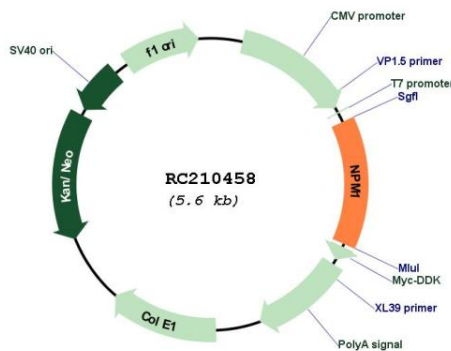
**Cytogenetics:** 5q35.1

**Protein Families:** Druggable Genome, Stem cell - Pluripotency, Transcription Factors

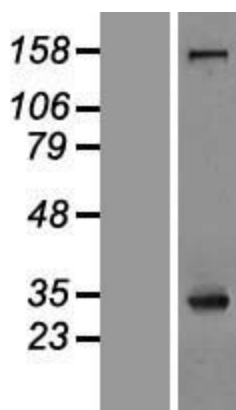
**MW:** 28.4 kDa

**Gene Summary:** The protein encoded by this gene is involved in several cellular processes, including centrosome duplication, protein chaperoning, and cell proliferation. The encoded phosphoprotein shuttles between the nucleolus, nucleus, and cytoplasm, chaperoning ribosomal proteins and core histones from the nucleus to the cytoplasm. This protein is also known to sequester the tumor suppressor ARF in the nucleolus, protecting it from degradation until it is needed. Mutations in this gene are associated with acute myeloid leukemia. Dozens of pseudogenes of this gene have been identified. [provided by RefSeq, Aug 2017]

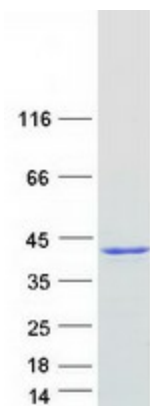
### Product images:



Circular map for RC210458



Western blot validation of overexpression lysate (Cat# [LY421985]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210458 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NPM1 protein (Cat# [TP310458]). The protein was produced from HEK293T cells transfected with NPM1 cDNA clone (Cat# RC210458) using MegaTran 2.0 (Cat# [TT210002]).