

## Product datasheet for **MR230740**

### **Rnf112 (NM\_001291024) Mouse Tagged ORF Clone**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                          |
| Product Name:             | Rnf112 (NM_001291024) Mouse Tagged ORF Clone |
| Tag:                      | Myc-DDK                                      |
| Symbol:                   | Rnf112                                       |
| Synonyms:                 | bfp; neurolastin; Zfp179; ZNF179             |
| Mammalian Cell Selection: | Neomycin                                     |
| Vector:                   | pCMV6-Entry (PS100001)                       |
| E. coli Selection:        | Kanamycin (25 ug/mL)                         |



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ORF Nucleotide  
Sequence:

>MR230740 representing NM\_001291024  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCCGAGGCCCGTCTGTCTCAGTCACTGCTTTTTGTCATCGGCTTGGCAAACGGGAGAGCAAACGAAGCT  
TCATGGGAAACAGCAGCAACAGTTGGTCCCATGCATCATTCCCAAGCTGGAGCTGGGCCTGGGACACCG  
TCCTCCCAACCCGGGAGCCGCCACCTGCTCCATCTGTCTGAAAGGCTTCGAGAGCCCATCTCGCTG  
GACTGTGGCCATGACTTCTGCATCCGATGCTTCAGCACACCCGCATCCCAGGCTGTGAGCTACCATGCT  
GTCCTGAATGCCGAAGATCTGTAAAGCAAAGGAAGGGCTCCGCAGTCTAGGGGAAAGGATGAAACTCCT  
ACCACAGCGGCCACTGCCCTGCACTGCAGGAGACCTGTGCTGTGAGGGCAGAAGCTGCTGTTGGTA  
CGAATCAATGCCTCCGGAGGCCATCCTCAGGATGGGCGCCATAAACCGTTGCCTGAAGCATCCACTGG  
CCAGGGACACACCCGCTGCTTATTGGCTGTCTGGGAGAGCAGCACTCAGGAAAGTCTTCTTTTGGAA  
CCACTTGCTCAGTGGCTTACCAAGCCTGGAATCTGGTGACAGCGCAGGCCAGAGCAGAGGGGTCTCTG  
CCTGGGATCAGATGGGGCGCTAACGGCCTCACGAGGGTATCTGGATGTGGAGTCAACCCCTCTCTGCTGG  
GAAAGAGGGGAAGAAGGTGGCTGTGTTCTTAGTGGACACGGGGATGTCATGAGCCCAGAACTGAGCAA  
GGAGACAAGGGTCAAGCTCTGTGCTCTCACCATGATGCTCAGTTCCTACCAGATCCTGAATACCTCCCAA  
GAGCTGAAGGATACCGATCTGGGCTATCTAGAGATGTTCTGTTACGTTGAGTGGGTGATGGGCAAACATT  
ATGGGATGGTACCAATCCAGCATCTGGATCTCTTAGTCCGAGACTCTCCCATCATAATAAGTCAGGGCA  
AGGGCACGTGGGTGACATACTCCAGAAGCTGTCCGGCAAATACCCCAAGTCCAGGAGCTGCTCCTCGGG  
AAACGGGCCCGCTGTTACCTCCTCCCTGCTCCTGAGAGGCAGTGGGTAACAAGACCAAGCCAGCCCCA  
GAGGCAACACAGAAGATGACTTCTCCACCATTTCCGGGCTACATCTTGACGTGCTGAGCACAGCCCC  
TCAGCACGCTAAGAGCCGCTGTCAAGGGTACTGGAGTGAGGGGCGTGCCGTGGCCAGGGGAGACAGACGC  
CTGCTCACAGGGCAGCAGCTAGCACAGGAGATCAAGAATCTCTCTGGCTGGATGGGGAAGACTGGGCCCA  
GTTTCAACTCTCTGATGAGATGGCTGCTCAGCTCCATGATCTGAGGAAAGTGAAGCCGCCAAGAAGGA  
GTTTCGAGGAGTACGTGAGACAGCAGGACATAGCCACCAAGCGCATCTTCTCTGCACTACGAGTCTGCT  
GACACGATGAGGAACCTCTCTTACCCAGAAGGATGCCATCTTGGCCCGCCATGGTGTGGCCCTGTTGT  
GCAAGGAGAGAGAGCAGACCTTGGAGGCCCTGGAAGCCGAGCTGCAGGCAGAAGCAAGGCCTTCATGGA  
CTCCTACACAATGCGCTTCTGTGGCCACCTGGCCGCGGTAGGGGCGCTGTAGGTGCTGGGCTCATGGC  
CTGGCAGGGGTGTGGTGGGCGCAGGCATGGCAGCAGCGCGTTGGCTGCTGAGGCTGGGATGGTAGCAG  
CTGGGGCCGCGGTGGGGGCCACCGGGGCTGCTGTGGTTGGGGGTGGTGTGGGTGCTGGTCTGGCCGCCAC  
TGTGGGCTGCATGGAGAAAGAGGAAGATGAGAGAGTCAAGGAGGGGACCAGAGCCCCTACTCCAGGAG  
GAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA

**Protein Sequence:** >MR230740 representing NM\_001291024  
Red=Cloning site Green=Tags(s)

MPPRVLSVTAFCRLGKRESKRSFMGNSSNSWSHASFPKLELGLGHRPSPTREPPTCSICLERLREPISL  
 DCGHDFCIRCFSTHRIPGCELPCCPECRKICKQRKGLRSLGERMKLLPQRPLPPALQETCAVRAERLLL  
 RINASGGLILRMGAINRCLKHPLARDTPVCLLAVLGEQHSKSFLLDHL SGLPSLESGDSGRPRAEGL  
 PGIRWGANGLTRGIWMWHPFLLGKEGKVVAVFLVDTGDVMSPELSKETRVKLCALTMMLSSYQILNTSQ  
 ELKDTDLGYLEMFVHVAEVMGKHYGMVPIQHLDLLVRDSSHHSKSGQGHVGDILQKLSGKYPKVQELLG  
 KRARCYLLPAPERQWVNKDQASPRGNTEDDFSHHFRAYILDVLPSTAPQHAKSRCQYWGSEGRAVARGDRR  
 LLTGQQLAQEIKNL SGWMGKTGPSFNSPDEMAAQLHDLRQVEAAKKEFEEYVRQQDIATKRIF SALRVLP  
 DTMRNLLSTQKDAILARHGVALCKEREQTL EALEAEAKAFMDSYTMRF CGHLAAVGGAVGAGLMG  
 LAGGVVAGMAAAALAEAGMVAAGA AVGATGA AVVGGV GAGLAATVGCMEKEEDERVQGGDREPLLQE  
 E

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_001291024

**ORF Size:** 1893 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\\_001291024.1](#), [NP\\_001277953.1](#)

**RefSeq Size:** 3029 bp

**RefSeq ORF:** 1896 bp

**Locus ID:** 22671

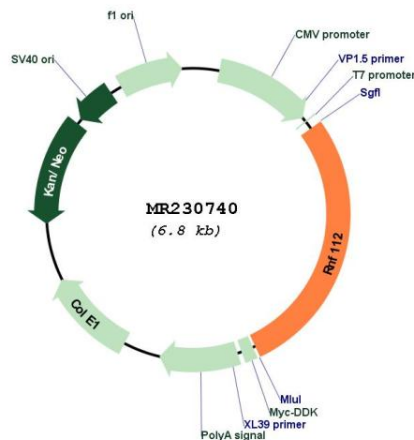
**UniProt ID:** [Q96DY5](#)

**Cytogenetics:** 11 37.96 cM

**MW:** 69.2 kDa

**Gene Summary:** E3 ubiquitin-protein ligase that plays an important role in neuronal differentiation, including neurogenesis and gliogenesis, during brain development. During embryonic development initiates neuronal differentiation by inducing cell cycle arrest at the G0/G1 phase through up-regulation of cell-cycle regulatory proteins (PubMed:21566658, PubMed:28684796). Plays a role not only in the fetal period during the development of the nervous system, but also in the adult brain, where it is involved in the maintenance of neural functions and protection of the nervous tissue cells from oxidative stress-induced damage (PubMed:27918959, PubMed:26792191, PubMed:26951452). Exhibits GTPase and E3 ubiquitin-protein ligase activities. Regulates dendritic spine density and synaptic neurotransmission; its ability to hydrolyze GTP is involved in the maintenance of dendritic spine density (PubMed:26212327). [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR230740