

Product datasheet for **MC205371**

Ndfip1 (NM_022996) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ndfip1 (NM_022996) Mouse Untagged Clone
Tag: Tag Free
Symbol: Ndfip1
Synonyms: 0610010M22Rik; N4wbp5
Mammalian Cell Selection: Neomycin
Vector: PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >BC026372

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GGAGAACGTCTCAGCGTCGGCAGCGTCCGTCCACACACGCCCCGGCGCGTACCTTTGGCCCTCCCGGCGA
CCCCAGCCGCGCGCTCGCGCCGATCAGCTCTCTCGCTCGCCCTCTCCCTGAGGCCGCTGCGCCA
TGGCCTTGGCGTTGGCGCGCTGGCGGCGTGGAGCCGGCTGCGGCAGCGGGTACCAGCAGTTGCAGAA
TGAAGAGGAGCCTGGGGAACCTGAGCAGACTGCAGGTGATGCTCCTCCACCATACAGCAGCATCACTGCA
GAGAGTGACGATATTTTACTACAAAGATGAATCTGGATTTCCAAAGCCCCATCGTATAATGTGGCTA
CAACACTGCCAGTTATGACGAGGCTGAGAGAACCAAGACTGAAGCTACGATCCCTTTGGTTCCTGGAAG
AGATGAAGATTTTGTGGGCCGGGATGATTTTATGATACTGACCAGCTGAGGATAGGAAACGATGGGATT
TTTATGTTAACTTTTTTCATGGCATTCTCTCAACTGGATTGGGTTTTTCTTGCTTTTTGCTGACCA
CCTCAGCTGCGGGAAGGTATGGGCCATCTCAGGATTTGGTCTTTCTCTAATTAAGTGGATCCTTATTGT
CAGGTTTTCCACCTATTTCCCTGGATACTTTGATGGCCAGTACTGGCTCTGGTGGGTGTTCTTGGTTTTA
GGCTTTCTCTGTTTCTCAGAGGATTTATCAATTACGCAAAAGTTCGGAAGATGCCAGAACTTTCTCAA
ATCTCCCCAGGACCAGAGTTCTCTTTATTTATTAAGATTTTTCTGGCAAAGGCTTCTGCACTGATGA
AGTCCCCTGAGAAAGCAGAGCACCTGCAGGAAGTGAATCACCACCAGAATGGAGGAACAGTCACCTGCTT
TAAAAAATAAAGTACTGTTGAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
```

Restriction Sites: RsrII-NotI

ACCN: NM_022996

Insert Size: 666 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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|-------------------------------|---|
| 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: | <ol style="list-style-type: none">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: | <u>BC026372</u> , <u>AAH26372</u> |
| RefSeq Size: | 1012 bp |
| RefSeq ORF: | 666 bp |
| Locus ID: | 65113 |
| UniProt ID: | <u>Q8R0W6</u> |
| Cytogenetics: | 18 B3 |

Gene Summary:

Activates HECT domain-containing E3 ubiquitin-protein ligases, including NEDD4 and ITCH, and consequently modulates the stability of their targets. As a result, controls many cellular processes. Prevents chronic T-helper cell-mediated inflammation by activating ITCH and thus controlling JUNB degradation (PubMed:11748237, PubMed:17137798, PubMed:20962770). Promotes pancreatic beta cell death through degradation of JUNB and inhibition of the unfolded protein response, leading to reduction of insulin secretion (PubMed:26319551). Restricts the production of proinflammatory cytokines in effector Th17 T-cells by promoting ITCH-mediated ubiquitination and degradation of RORC (PubMed:28051111). Together with NDFIP2, limits the cytokine signaling and expansion of effector Th2 T-cells by promoting degradation of JAK1, probably by ITCH- and NEDD4L-mediated ubiquitination (PubMed:27088444). Regulates peripheral T-cell tolerance to self and foreign antigens, forcing the exit of naive CD4+ T-cells from the cell cycle before they become effector T-cells (PubMed:24520172, PubMed:28051111). Negatively regulates RLR-mediated antiviral response by promoting SMURF1-mediated ubiquitination and subsequent degradation of MAVS (By similarity). Negatively regulates KCNH2 potassium channel activity by decreasing its cell-surface expression and interfering with channel maturation through recruitment of NEDD4L to the Golgi apparatus where it mediates KCNH2 degradation (By similarity). In cortical neurons, mediates the ubiquitination of the divalent metal transporter SLC11A2/DMT1 by NEDD4L, leading to its down-regulation and protection of the cells from cobalt and iron toxicity (By similarity). Important for normal development of dendrites and dendritic spines in cortex (PubMed:23897647). Enhances the ubiquitination of BRAT1 mediated by: NEDD4, NEDD4L and ITCH and is required for the nuclear localization of ubiquitinated BRAT1 (PubMed:25631046). Enhances the ITCH-mediated ubiquitination of MAP3K7 by recruiting E2 ubiquitin-conjugating enzyme UBE2L3 to ITCH (PubMed:25632008). Modulates EGFR signaling through multiple pathways. In particular, may regulate the ratio of AKT1-to-MAPK8 signaling in response to EGF, acting on AKT1 probably through PTEN destabilization and on MAPK8 through ITCH-dependent MAP2K4 inactivation. As a result, may control cell growth rate (By similarity). Inhibits cell proliferation by promoting PTEN nuclear localization and changing its signaling specificity (PubMed:25801959).[UniProtKB/Swiss-Prot Function]