

Product datasheet for **RC218468**

DDI2 (NM_032341) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DDI2 (NM_032341) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DDI2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218468 representing NM_032341 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGCTCACCGTGTACTGTGTGCGGAGGGACCTCTCCGAGGTGACCTTTCCCTCCAGGTCGACGCCG
ACTTCGAGCTGCACAACCTCCGCGCGCTGTGCGAGCTCGAGTCTGGCATCCCCGCAGCCGAGAGCCAGAT
CGTCTATGCGGAAAGACCTCTCACAGACAACCACAGATCATTGGCTTCTTATGGCTTGAAGATGGGGAC
GTTGTGATTTTACGACAGAAGGAGAATGCAGACCCTCGACCTCCAGTGCAGTTCCCAAACCTACCCCGAA
TAGATTTTCAGTAGTATAGCTGTGCTGGCACATCAAGTCCCCGCAGCCAGCCAGCAAGAACACAGCA
GTCCCACTCATCTCCTGGAGAAAATAACTTCATCTCCTCAGGGCTTGGACAATCCAGCCTTGCTCCGAGAT
ATGTTGCTGGCCAACCCGCATGAGCTGTCTTGCTGAAGGAACGCAATCCACCCCTGGCAGAAGCTCTGC
TCAGTGGAGACCTTGAGAAATTTCTAGAGTCTGGTGGAGCAGCAGCAGGACCGAGCCCGGAGAGAGCA
AGAAAGGATTCGTCTGTTTTCTGCTGATCCCTTTGACCTTGAAGCTCAGGCAAAGATAGAAGAAGATATA
AGGCAACAGAACATTGAGGAAAACATGACAATAGCTATGGAAGAGGCTCCGAAAGTTTTGGCCAAGTAG
TGATGCTTTATTAAGTCAAAGTGAATGGACATCCTGTGAAAGCCTTTGTTGACTCAGGTGCCAGAT
GACTATCATGAGCCAAGCTTGTGCAGAAAGGTGAACATAATGAGACTGGTGGACCGTCCGTGGGCAGGG
ATTGCCAAAGGAGTGGGCACCCAGAAGATTATTGGAAGGTTACATCTAGCTCAGGTTGAGATTGAAGGAG
ATTTTTTGCCATGTTCTTCTATACTTGAGGAACAGCCATGGACATGCTTCTGGGACTGGACATGCT
TAAACGGCACCAGTGTTCCATCGACCTGAAGAAAATGTACTCGTATCGGCACCCAGGCTCCCAGACC
ACCTTTCTTCTGAGGGAGAGCTACCAGAGTGTGCCCGGTTGGCATATGGGGCTGGAAGAGAGGATGTAC
GGCCAGAGGAGATTGCAGACCAAGAATTAGCAGAAGCCCTTCAAAAATCAGCAGAGGATGCAGAGCGTCA
GAAGCCA

ACGCGTACGCGGCGGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC218468 representing NM_032341
Red=Cloning site Green=Tags(s)

MLLTVYCVRRDLSEVTFSLQVDADFELHNFRALCELESGIPAAESQIVYAERPLTDNHRSLASYGLKDG
 VVILRQKENADPRPPVQFPNLPRIDFSSIAVPGTSSPRQRPPGTQQSHSSPGEITSSPQGLDNPALLRD
 MLLANPHEL SLLKERNPPLAEALLSGDLEKFSRVLVEQQQDRARREQERIRLFSADPFDLAQAKIEEDI
 RQQNIEENMTIAMEEAPESFGQVVMLYINCKVNGHPVKAFVDSGAQMTIMSQACAERCNIMRLVDRRWAG
 IAKGVGTQKIIGRVHLAQVQIEGDFLPCSF SILEEQPMDMLLGLDMLKRHQCSIDLKKNVLVIGTTGSQT
 TFLPEGELPECARLAYGAGREDVRPEE IADQELAEALQKSAEDAERQKP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8021_c08.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_032341

ORF Size: 1197 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_032341.5](#)

RefSeq Size: 1759 bp

RefSeq ORF: 1200 bp

Locus ID: 84301

UniProt ID: [Q5TDH0](#)

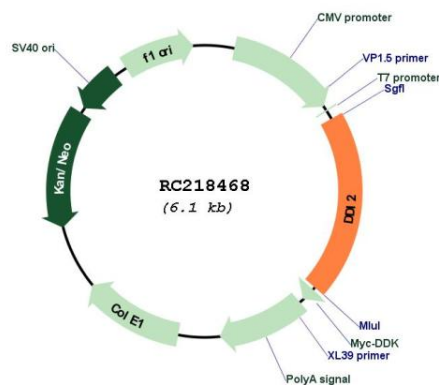
Cytogenetics: 1p36.21

Protein Families: Druggable Genome

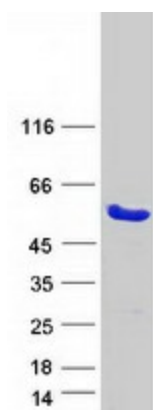
MW: 44.3 kDa

Gene Summary: Aspartic protease that mediates the cleavage of NFE2L1/NRF1 at 'Leu-104', thereby promoting release of NFE2L1/NRF1 from the endoplasmic reticulum membrane (PubMed:27676298, PubMed:27528193). Ubiquitination of NFE2L1/NRF1 is a prerequisite for cleavage, suggesting that DDI2 specifically recognizes and binds ubiquitinated NFE2L1/NRF1 (PubMed:27528193). Seems to act as a proteasomal shuttle which links the proteasome and replication fork proteins like RTF2 (Probable). Required, with DDI1, for cellular survival following replication stress. Together or redudantly with DDI1, removes RTF2 from stalled forks to allow cell cycle progression after replication stress and maintains genome integrity (PubMed:29290612). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC218468



Coomassie blue staining of purified DDI2 protein (Cat# [TP318468]). The protein was produced from HEK293T cells transfected with DDI2 cDNA clone (Cat# RC218468) using MegaTran 2.0 (Cat# [TT210002]).