

Product datasheet for RC201119

DUSP3 (NM_004090) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: DUSP3 (NM_004090) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: DUSP3
Synonyms: VHR
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC201119 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGTCGGGCTCGTTCGAGCTCTCGGTGCAGGATCTCAACGACCTGCTCTCGGACGGCAGCGGCTGCTACA
 GCCTCCCGAGCCAGCCCTGCAACGAGGTACCCCGCGGATCTACGTGGGCAACGCGTCTGTGGCTCAGGA
 CATCCCCAAGTCAGAACTAGGCATACCCATGTGCTGAACGCGGCTGAGGGCAGGTCTTCATGCAC
 GTCAACACCAATGCCAATTCTACAAGGACTCCGGCATCACATACCTGGGCATCAAGGCCAACGACACAC
 AGGAGTTCAACCTCAGCGTTACTTTGAAAGGGCTGCCGACTTCATTGACCAGGCTTTGGCTCAAAAGAA
 TGGCCGGGTGCTCGTCCACTGCCGGAAGTTATAGCCGCTCCCAACGCTAGTTATCGCCTACCTCATG
 ATGCGGCAGAAGATGGACGTCAAGTCTGCCTGAGCATCGTGAGGCAGAACCGTGAGATCGGCCCAACG
 ATGGCTTCCTGGCCAGCTCTGCCAGCTCAATGACAGACTAGCCAAGGAGGGGAAGTTGAAACCC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC201119 protein sequence
 Red=Cloning site Green=Tags(s)

MSGSFELSVQDLNDLLSDGSGCYSLPSQPCNEVTPRIYVGNASVAQDIPKLQKLGIHVLNAAEGRSFMH
 VNTNANFYKDSGITYLGIKANDTQEFNL SAYFERAADFIDQALAQKNRVLVHCREGYSRPTLVIAIYLM
 MRQKMDVKALSIVRQNR EIGPNDGFLAQLCQLNDRLAKEGKLP

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

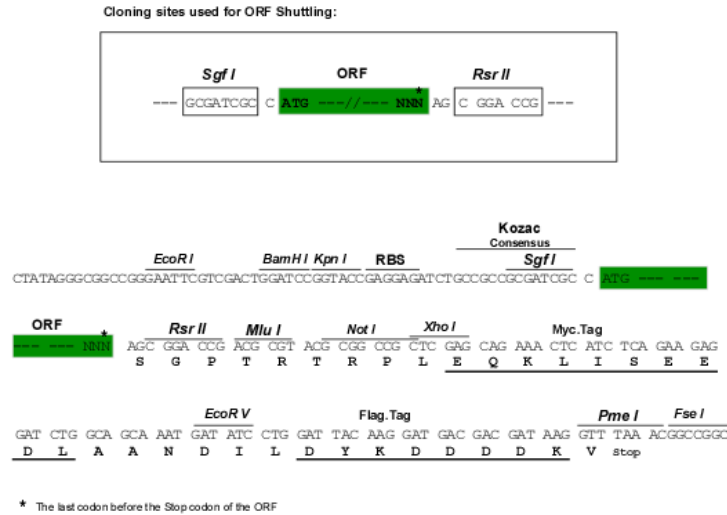
Chromatograms: https://cdn.origene.com/chromatograms/mk6183_d03.zip



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Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_004090

ORF Size: 555 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_004090.4](#)

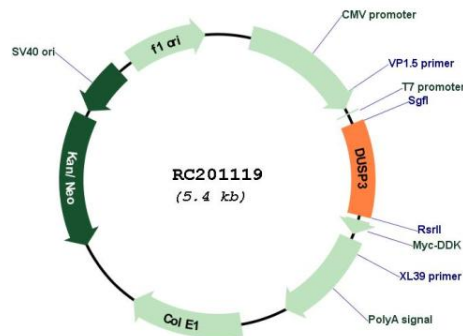
RefSeq Size: 4139 bp

RefSeq ORF: 558 bp

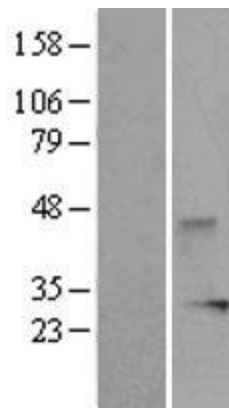
Locus ID: 1845
UniProt ID: [P51452](#)
Cytogenetics: 17q21.31
Domains: DSPc
Protein Families: Druggable Genome, Phosphatase
Protein Pathways: MAPK signaling pathway
MW: 20.5 kDa

Gene Summary: The protein encoded by this gene is a member of the dual specificity protein phosphatase subfamily. These phosphatases inactivate their target kinases by dephosphorylating both the phosphoserine/threonine and phosphotyrosine residues. They negatively regulate members of the mitogen-activated protein (MAP) kinase superfamily (MAPK/ERK, SAPK/JNK, p38), which are associated with cellular proliferation and differentiation. Different members of the family of dual specificity phosphatases show distinct substrate specificities for various MAP kinases, different tissue distribution and subcellular localization, and different modes of inducibility of their expression by extracellular stimuli. This gene maps in a region that contains the BRCA1 locus which confers susceptibility to breast and ovarian cancer. Although DUSP3 is expressed in both breast and ovarian tissues, mutation screening in breast cancer pedigrees and in sporadic tumors was negative, leading to the conclusion that this gene is not BRCA1. [provided by RefSeq, Jul 2008]

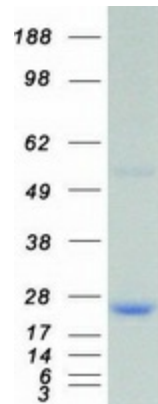
Product images:



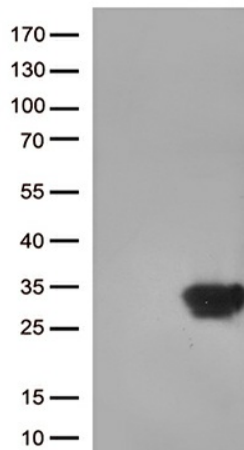
Circular map for RC201119



Western blot validation of overexpression lysate (Cat# [LY401320]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201119 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DUSP3 protein (Cat# [TP301119]). The protein was produced from HEK293T cells transfected with DUSP3 cDNA clone (Cat# RC201119) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DUSP3 (Cat# RC201119, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-DUSP3 (Cat# [TA812964])(1:500). Positive lysates [LY401320] (100ug) and [LC401320] (20ug) can be purchased separately from OriGene.