

## 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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGGGCTCGTTCGAGCTCTCGGTGCAGGATCTCAACGACCTGCTCTCGGACGGCAGCGGCTGCTACA  
GCCTCCCAGCCAGCCCTGCAACGAGGTCACCCCGGGATCTACGTGGGCAACCGCTGTGGCTCAGGA  
CATCCCCAAGCTGCAGAACTAGGCATACCCATGTGCTGAACCGGGCTGAGGGCAGGTCCTTCATGCAC  
GTCAACACCAATGCCAATTCTACAAGGACTCCGGCATCACATACCTGGGCATCAAGGCCAACGACACAC  
AGGAGTCAACCTCAGCGCTTACTTTGAAAGGGCTGCCGACTTATTGACCAGGCTTTGGCTCAAAAGAA  
TGCCCGGGTGTCTGCTCCACTGCCGGGAAGTTATAGCCGCTCCCAACGCTAGTTATCGCCTACCTCATG  
ATGCGGCAGAAGATGGACGTCAGTCTGCCCTGAGCATCGTGAGGCAGAACCCTGAGATCGGCCCAACG  
ATGGCTTCTGGCCAGCTCTGCCAGCTCAATGACAGACTAGCCAAGGAGGGGAAGTTGAAACCC

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA

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

MSGSFELSVQDLNDLLSDGSGCYSLPSQPCNEVTPRIYVGNASVAQDIPKLQKLGIHVLNAAEGRSFMH  
VNTNANFYKDSGITYLGIKANDTQEFNL SAYFERAADFIDQALAQKNGRVLVHCREGYSRSPTLVIA YLM  
MRQKMDVKALSIVRQNREIGPNDGFLAQLQLNDRLAKEGKLP

**SGP**TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

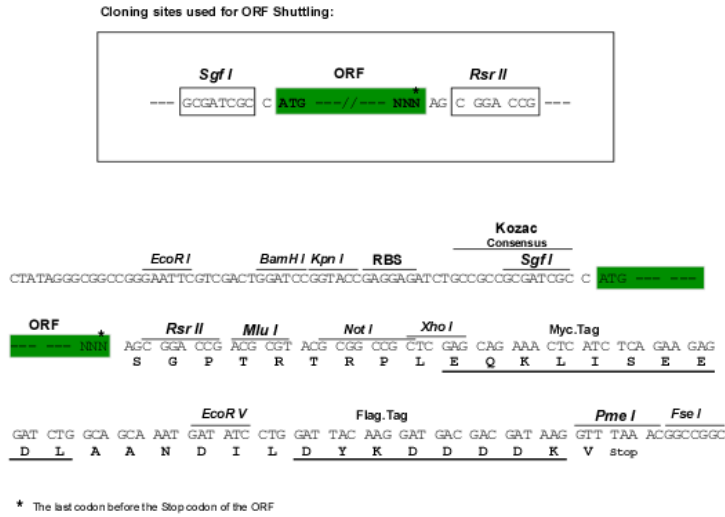
**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6183\\_d03.zip](https://cdn.origene.com/chromatograms/mk6183_d03.zip)



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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.

**RefSeq:** [NM\\_004090.4](#)

**RefSeq Size:** 4139 bp

**RefSeq ORF:** 558 bp

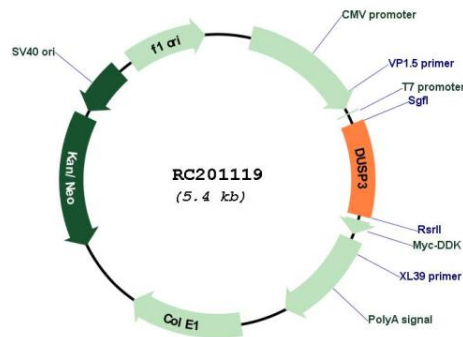
**Locus ID:** 1845

**UniProt ID:** [P51452](#)

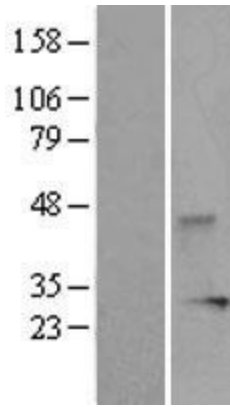
Cytogenetics:	17q21.31
Domains:	DSPc
Protein Families:	Druggable Genome, Phosphatase
Protein Pathways:	MAPK signaling pathway
MW:	20.5 kDa

**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]

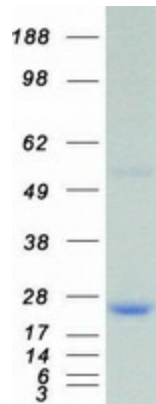
## Product images:



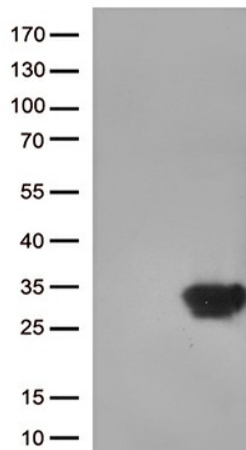
Circular map for RC201119



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.