

## Product datasheet for RC215252

### DUSP4 (NM\_057158) Human Tagged ORF Clone

#### Product data:

|                           |                                                                             |
|---------------------------|-----------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                         |
| Product Name:             | DUSP4 (NM_057158) Human Tagged ORF Clone                                    |
| Tag:                      | Myc-DDK                                                                     |
| Symbol:                   | DUSP4                                                                       |
| Synonyms:                 | HVH2; MKP-2; MKP2; TYP                                                      |
| Mammalian Cell Selection: | Neomycin                                                                    |
| Vector:                   | pCMV6-Entry (PS100001)                                                      |
| E. coli Selection:        | Kanamycin (25 ug/mL)                                                        |
| ORF Nucleotide Sequence:  | >RC215252 representing NM_057158<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGAAGAAAAGTTCACTCCAACGGAAGCCAGTTTGCTGAACATAGCAGATCGCCAGGAGGACTGGGA  
GAGACTGCAAACAGTTCGAGCCCCAGCATGGCGTTAGGTGTCAGCCAGCTGGCAGGAAGGTCCAGGTG  
TCTGTGTTTCAGAGTCTCAAGGCGGCTATGAGAGTTTTCTCCGAGTACCCAGAATTCTGTTCTAAAACC  
AAGGCCCTGGCAGCCATCCACCCCGGTTCCCCCAGTGCCACAGGCCCTTGGACCTGGGCTGCAGCT  
CCTGTGGGACCCACTACACGACCAGGGGGTCTGTGGAGATCCTTCCCTTCTACCTCGGCAGTGC  
CTACCATGCTGCCCGGAGAGACATGCTGGACGCCCTGGGATCACGGCTCTGTTGAATGCTCCTCGGAC  
TGCCCAAACCACTTTGAAGGACACTATCAGTACAAGTGCATCCCAGTGAAGATAAACACAAGGCCGACA  
TCAGCTCCTGGTTCATGGAAGCCATAGAGTACATCGATGCCGTGAAGGACTGCCGTGGGCGCGTGTGGT  
GCACTGCCAGGCGGGCATCTCGCGGTCGGCCACCATCTGCCTGGCCTACCTGATGATGAAGAAACGGGTG  
AGGCTGGAGGAGGCCCTTCGAGTTCGTTAAGCAGCGCCGAGCATCATCTGCCAACTTCAGTTTCATGG  
GGCAGTGTCTGCAGTTCGAGTCCAGGTGCTGGCCAGTCTGTGCTGCGGAGGCTGCTAGCCCCCGGG  
ACCCCTGCGGGAGCGGGCAAGACCCCGCCACCCCACTCGCAGTTCGTCTTCAGCTTCCGGTCTCC  
GTGGCGTGCACCTCGGCCCCAGCAGCTGCCCTACCTGCACAGCCCCATCACCACTCTCCAGCTGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC215252 representing NM\_057158  
Red=Cloning site Green=Tags(s)

MGRKVVHNSGSQFAEHSRSPRRTGRDCKPVRAPSMALGVSQLAGRSRCLCSESQGGYERFSSEYPEFCSKT  
 KALAAIPPPVPSSATEPLDLGCSSCGTPLHDQGGPVEILPFLYLGSAHYHAARRDMLDALGITALLNVSSD  
 CPNHFEGHYQYKCIPVEDNHKADISSWFMEAIEYIDAVKDCRGRVLVHCQAGISRSATICLAYLMMKKRV  
 RLEEAFEFVKQRSSIISPNFSFMGQLLQFESQVLATSCAAEAASPSGPLRERGKTPATPTSQVFVFSFPVS  
 VGVHSAPSSLPYLHSPITTSpsc

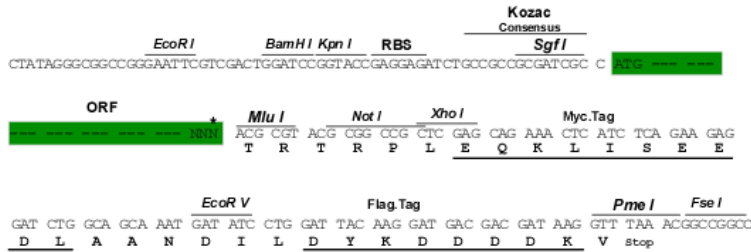
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6112\\_h08.zip](https://cdn.origene.com/chromatograms/mk6112_h08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_057158

**ORF Size:** 909 bp

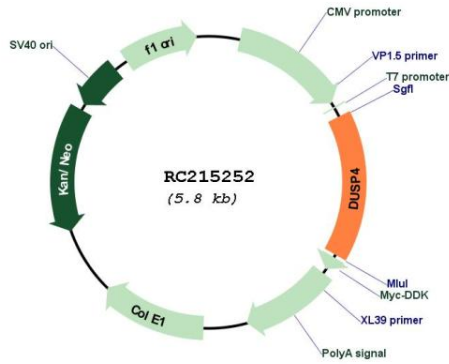
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

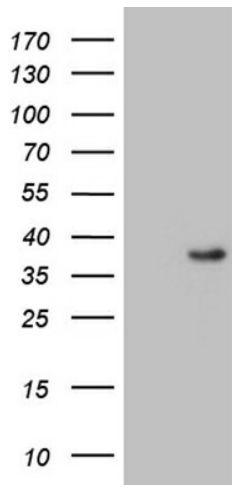
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>RefSeq:</b>                | <a href="#">NM_057158.3</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>RefSeq Size:</b>           | 3404 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>RefSeq ORF:</b>            | 912 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Locus ID:</b>              | 1846                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>UniProt ID:</b>            | <a href="#">Q13115</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cytogenetics:</b>          | 8p12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Protein Families:</b>      | Phosphatase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Protein Pathways:</b>      | MAPK signaling pathway                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>MW:</b>                    | 32.8 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Gene Summary:</b>          | <p>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 product inactivates ERK1, ERK2 and JNK, is expressed in a variety of tissues, and is localized in the nucleus. Two alternatively spliced transcript variants, encoding distinct isoforms, have been observed for this gene. In addition, multiple polyadenylation sites have been reported. [provided by RefSeq, Jul 2008]</p> |

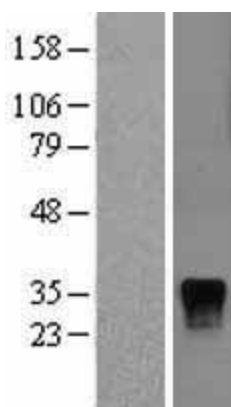
Product images:



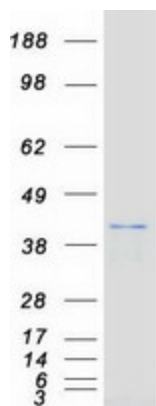
Circular map for RC215252



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DUSP4 (Cat# RC215252, 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-DUSP4 (Cat# [TA809444])(1:2000). Positive lysates [LY403296] (100ug) and [LC403296] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403296]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215252 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DUSP4 protein (Cat# [TP315252]). The protein was produced from HEK293T cells transfected with DUSP4 cDNA clone (Cat# RC215252) using MegaTran 2.0 (Cat# [TT210002]).