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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
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGAAGAAAAGTTCACTCCAACGGAAGCCAGTTTGCTGAACATAGCAGATCGCCCAGGAGGACTGGGA
GAGACTGCAAACCAGTTCGAGCCCCCAGCATGGCGTTAGGTGTCAGCCAGCTGGCAGGAAGGTCCAGGTG
TCTGTGTTCAGAGTCTCAAGGCGGCTATGAGAGGTTTTCCTCCGAGTACCCAGAATTCTGTTCTAAAACC
AAGGCCCTGGCAGCCATCCCACCCCCGGTTCCCCCCAGTGCCACAGAGCCCTTGGACCTGGGCTGCAGCT
CCTGTGGGACCCCACTACACGACCAGGGGGGTCCTGTGGAGATCCTTCCCTTCCTCTACCTCGGCAGTGC
CTACCATGCTGCCCGGAGAGACATGCTGGACGCCCTGGGCATCACGGCTCTGTTGAATGTCTCCTCGGAC
TGCCCAAACCACTTTGAAGGACACTATCAGTACAAGTGCATCCCAGTGGAAGATAACCACAAGGCCGACA
TCAGCTCCTGGTTCATGGAAGCCATAGAGTACATCGATGCCGTGAAGGACTGCCGTGGGCGCGTGCTGGT
GCACTGCCAGGCGGGCATCTCGCGGTCGGCCACCATCTGCCTGGCCTACCTGATGATGAAGAAACGGGTG
AGGCTGGAGGAGGCCTTCGAGTTCGTTAAGCAGCGCCGCAGCATCATCTCGCCCAACTTCAGCTTCATGG
GGCAGCTGCTGCAGTTCGAGTCCCAGGTGCTGGCCACGTCCTGTGCTGCGGAGGCTGCTAGCCCCTCGGG
ACCCCTGCGGGAGCGGGGCAAGACCCCCGCCACCCCCACCTCGCAGTTCGTCTTCAGCTTTCCGGTCTCC
GTGGGCGTGCACTCGGCCCCCAGCAGCCTGCCCTACCTGCACAGCCCCATCACCACCTCTCCCAGCTGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC215252 representing NM_057158
Red=Cloning site Green=Tags(s)

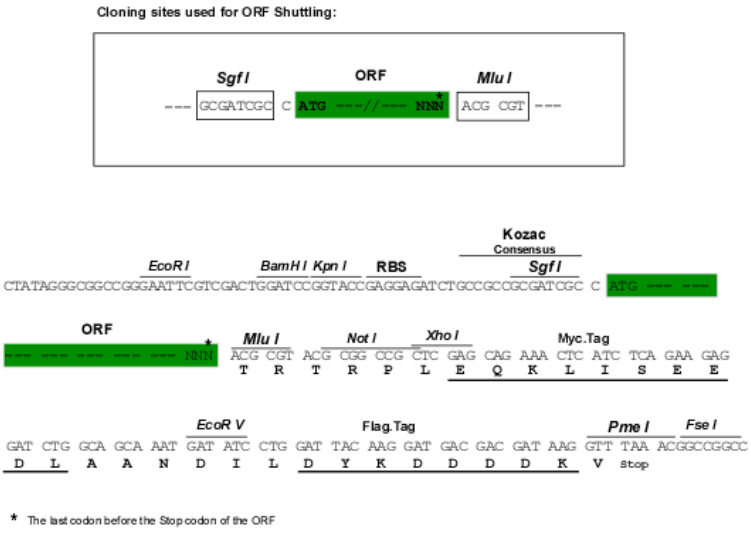
MGRKVHSNGSQFAEHSRSPRRTGRDCKPVRAPSMALGVSQLAGRSRCLCSESQGGYERFSSEYPEFCSKT
KALAAIPPPVPPSATEPLDLGCSSCGTPLHDQGGPVEILPFLYLGSAYHAARRDMLDALGITALLNVSSD
CPNHFEGHYQYKCIPVEDNHKADISSWFMEAIEYIDAVKDCRGRVLVHCQAGISRSATICLAYLMMKKRV
RLEEAFEFVKQRRSIISPNFSFMGQLLQFESQVLATSCAAEAASPSGPLRERGKTPATPTSQFVFSFPVS
VGVHSAPSSLPYLHSPITTSPSC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6112_h08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_057158

ORF Size: 909 bp

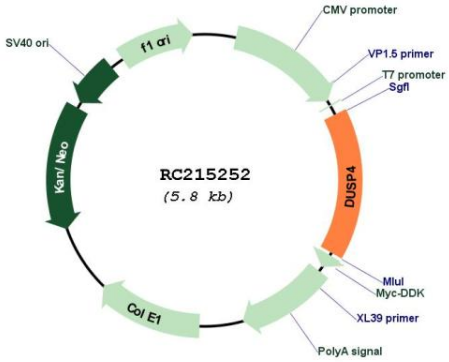
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

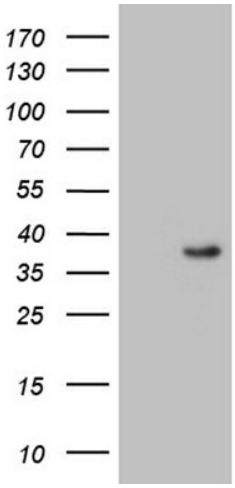
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_057158.3
RefSeq Size:	3404 bp
RefSeq ORF:	912 bp
Locus ID:	1846
UniProt ID:	Q13115
Cytogenetics:	8p12
Protein Families:	Phosphatase
Protein Pathways:	MAPK signaling pathway
MW:	32.8 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 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]

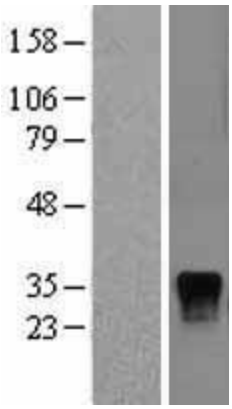
Product images:



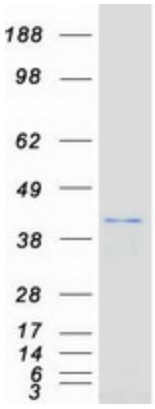
Circular map for RC215252



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 un-transfected 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]).