

Product datasheet for RC205220

DUSP1 (NM_004417) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DUSP1 (NM_004417) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DUSP1
Synonyms:	CL100; HVH1; MKP-1; MKP1; PTPN10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205220 representing NM_004417 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTCATGGAAGTGGGCACCCTGGACGCTGGAGGCTGCGGGCGCTGCTGGGGAGCGAGCGGCGCAAT
GCCTGCTGCTGGACTGCCGCTCTTCTTCGTTTCAACGCCGGCCACATCGCCGGCTCTGTCAACGTGCG
CTTCAGCACCATCGTGTGGCGCCGGCCAAGGGCGCCATGGGCCTGGAGCACATCGTCCCAACGCCGAG
CTCCGCGCCGCTGCTGGCCGGCGCTACCACGCGTGGTGTGCTGGACGAGCGCAGCGCCGCTGG
ACGGCGCAAGCGGACGCGCACCTGGCCCTGGCGCCGGCGCTCTGCCGCGAGGCGCGCCGCGCA
AGTCTTCTTCTCAAAGGAGGATACGAAGCGTTTTTCGGCTTCTGCCCGAGCTGTGCAGAAACAGTGC
ACCCCATGGGGCTCAGCCTTCCCTGAGTACTAGCGTCCCTGACAGCGGGAATCTGGGTGCAGTTCT
GCAGTACCCACTCTACGATCAGGGTGGCCCGGTGAAATCCTGCCCTTCTGTACCTGGGCAGTGCGTA
TCACGTTCCCGCAAGGACATGCTGGATGCCTTGGGCATAACTGCCTTGATCAACGTCTCAGCAATTGT
CCCAACCATTTGAGGGTCACTACAGTACAAGAGCATCCCTGTGGAGGACAACCACAAGGCAGACATCA
GCTCCTGGTTCAACGAGGCCATTGACTTCATAGACTCCATCAAGAATGCTGGAGGAAGGGTGTGTGCA
CTGCCAGGCAGGCATTTCCCGTCCAGCCACCATCTGCCTTGTACCTTATGAGGACTAATCGAGTCAAG
CTGGACGAGGCCTTTGTGTTGTAAGCAGAGGCGAAGCATCATCTCCCAACTCAGTTCATGGGCC
AGCTGCTGAGTTTGTGCTCCAGGTGCTGGCTCCGCACTGTTCCGACAGAGGCTGGGAGCCCGCCATGGC
TGTGCTCGACCGAGGCACCTCCACCACCACCGTGTCAACTTCCCGTCTCCATCCCTGTCCACTCCAGC
AACAGTGCCTGAGCTACCTCAGAGCCCATACGACCTCTCCAGCTGC

ACGGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC205220 representing NM_004417
Red=Cloning site Green=Tags(s)

MYMEVGTLDAGGLRALLGERAAQCLLLDCRSFFAFNAGHIAGSVNVRVSTIVWRRAKGAMGLEHIVPNAE
 LRGRLLAGAYHAVVLLDERSAALDGAKRDGTLALAAGALCREAAAQVFFLKGGYEAFSASCPCLCSKQS
 TPMGLSLPLSTSVPSAESGSCSSCSTPLYDQGGPVEILPFLYLGSAHASRKDMLDALGITALINVSANC
 PNHFEGHYQYKSIPIVEDNHKADISSWFNEAIDFIDSIKNAGGRVVFHCQAGISRSATICLAYLMRTNRVK
 LDEAFEFVKQRRSII SPNFSFMGQLLQFESQVLAPHCSAEAGSPAMAVLDRGTSTTTVFNFVPSIPVHST
 NSALSYLQSPITTPSC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2339_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_004417

ORF Size: 1101 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_004417.4](#)

RefSeq Size: 2015 bp

RefSeq ORF: 1104 bp

Locus ID: 1843

UniProt ID: [P28562](#)

Cytogenetics: 5q35.1

Domains: DSPc, RHOD, PTPc_motif

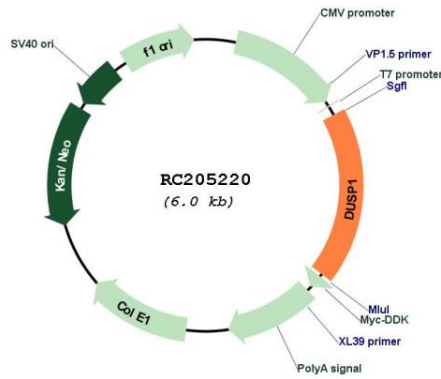
Protein Families: Druggable Genome, Phosphatase

Protein Pathways: MAPK signaling pathway

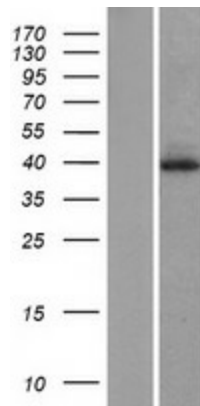
MW: 39.1 kDa

Gene Summary: The protein encoded by this gene is a phosphatase with dual specificity for tyrosine and threonine. The encoded protein can dephosphorylate MAP kinase MAPK1/ERK2, which results in its involvement in several cellular processes. This protein appears to play an important role in the human cellular response to environmental stress as well as in the negative regulation of cellular proliferation. Finally, the encoded protein can make some solid tumors resistant to both chemotherapy and radiotherapy, making it a target for cancer therapy. [provided by RefSeq, Aug 2017]

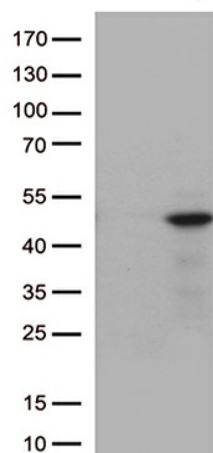
Product images:



Circular map for RC205220



Western blot validation of overexpression lysate (Cat# [LY401403]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205220 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DUSP1 (Cat# RC205220, 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-DUSP1 (Cat# [TA812680])(1:500). Positive lysates [LY401403] (100ug) and [LC401403] (20ug) can be purchased separately from OriGene.