

## Product datasheet for **RC202878**

### DUSP2 (NM\_004418) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DUSP2 (NM_004418) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DUSP2
Synonyms:	PAC-1; PAC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202878 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGGGGCTGGAGGCGGCGCGGAGCTGGAGTGCGCGGCGCTGGGCACGCTGCTGCGGGATCCGCGGGAGG  
CGGAACGCACGCTGCTGCTGGACTGCCGCCCCCTCCTGGCCTTCTGCCGGCGCCACGTGCGCGCCGCGCG  
GCCAGTGCCTTGAACGCGCTGCTGCGGCGCCGCGCGCGGCCCTCCTGCCGCCGTTCTCGCTGCCTG  
CTGCCCGACCGCGCTGCGGACGCGCTGGTCCGCGGGGAGCTGGCGGGGCCGTGGTGTGGACGAGG  
GCAGTGCCTCGGTGGCGGAGCTCCGGCCCGACAGCCCGGCTCATGTGCTGCTGGCCGCGCTGCTGCACGA  
GACCCGCGCGGGGCCACTGCCGTGTACTTCTGCGAGGAGGCTTCGACGGCTTCAGGGGTGCTGTCCC  
GATCTGTGCTCTGAGGCCCCCGCCCTGCGCTGCCGCCAACAGGGGACAAAACAGCCGCTCCGACTCCA  
GGGCTCCTGTCTACGACCAGGTGGCCCTGTGGAGATCTTGCCCTACCTGTTCTGGGCAGCTGCAGTCA  
CTCGTCAGACCTGCAGGGGCTGCAGGCCTGTGGCATCACAGCCGTCCTCAACGTGTCCGCCAGCTGCCCC  
AACCACCTTTGAGGGCCTTTCCGCTACAAGAGTATCCCTGTGGAGGACAACAGATGGTGGAGATCAGTG  
CCTGGTTCCAGGAGGCCATAGGCTTCATTGACTGGGTGAAGAACAGCGGAGGCCGGGTGCTGGTGCAGTG  
CCAGGCGGGTATCTCGCGCTCTGCCACCATCTGTCTGGCATACTCATGCAGAGTCGCCGTGTGCGGCTG  
GACGAGGCCTTTGACTTCGTTAAGCAGCGCCGGGGGTGTCATCTCCCCAATTTCAGTTTCATGGGCGAGC  
TGCTGCAGTTTGAGACCCAGGTGCTGTGTAC

**ACGCGT**ACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC202878 protein sequence  
 Red=Cloning site Green=Tags(s)

MGLEAARELECAALGTLLRDPREAERTLLDCRPFLAFCRRHVRAARPVPWNALLRRRARGPPAAVLACL  
 LPDRALRTRLVRGELARAVVLDEGSASVAELRPDSPAHLVLAALLHETRAGPTAVYFLRGGFDFGQCCP  
 DLCSEAPAPALPTGDKTSRSDSRAPVYDQGGPVEILPYLFLGSCSHSSDLQGLQACGITAVLNVSASCP  
 NHFEGLFRYKSIPVEDNQMVETSAWFQEAIGFIDWVKNSGGRVLVHCQAGISRSATICLAYLMQSRRVRL  
 DEAFDFVKQRRGVISPNFSFMGQLLQFETQVLCH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6831\\_h08.zip](https://cdn.origene.com/chromatograms/mk6831_h08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_004418

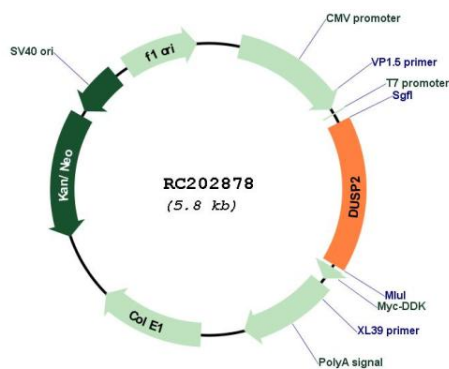
**ORF Size:** 942 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

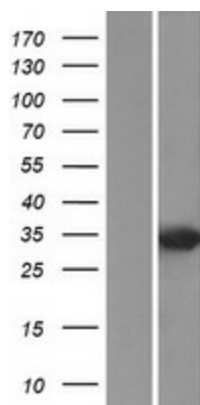
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_004418.4</a>
<b>RefSeq Size:</b>	1708 bp
<b>RefSeq ORF:</b>	945 bp
<b>Locus ID:</b>	1844
<b>UniProt ID:</b>	<a href="#">Q05923</a>
<b>Cytogenetics:</b>	2q11.2
<b>Domains:</b>	DSPc, RHOD, PTPc_motif
<b>Protein Families:</b>	Druggable Genome, Phosphatase
<b>Protein Pathways:</b>	MAPK signaling pathway
<b>MW:</b>	34.4 kDa
<b>Gene Summary:</b>	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 and ERK2, is predominantly expressed in hematopoietic tissues, and is localized in the nucleus. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RC202878



Western blot validation of overexpression lysate (Cat# [LY417997]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202878 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).