

## Product datasheet for **SC319175**

### **DUSP2 (NM\_004418) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	DUSP2 (NM_004418) Human Untagged Clone
Tag:	Tag Free
Symbol:	DUSP2
Synonyms:	PAC-1; PAC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_004418.2  
 ACCGCCACGAGAGCCCGGGACGCGGGAAAGACCGAAAGGAAGAGGAAGAGGCACCGGTGG  
 CCATGGGGCTGGAGGCGGCGCGAGCTGGAGTGC GCGGCGCTGGGCACGCTGCTGCGGG  
 ATCCGCGGGAGGCGGAACGCACGCTGCTGCTGGACTGCCGCCCTTCTGGCCTTCTGCC  
 GGGCCACGTGCGCGCCGCGCGGCCAGTGCCTTGAACGCGCTGCTGCGGCGCCGCGCG  
 GCGGCCCTCTGCCGCCCTTCTCGCCTGCCTGCTGCCCCAGCCGCGCTGCGGACGCGGC  
 TGGTCCGCGGGGAGCTGGCGCGGGCCGTGGTGTGGACGAGGGCAGTGCCTCGGTGGCGG  
 AGCTCCGGCCCGACAGCCGGCTCATGTGCTGCTGGCCGCGCTGCTGCACGAGACCCGCG  
 CGGGGCCACTGCCGTGTA TCTCTGCGAGGAGGCTTCGACGGCTTCCAGGGCTGCTGTC  
 CCGATCTGTGCTCTGAGGCCCGCCCTGCGCTGCCGCAACAGGGGACAAAACAGCC  
 GCTCCGACTCCAGGGCTCTGTCTACGACCAGGGTGGCCCTGTGGAGATTTGCCCTACC  
 TGTTCTGGGCAGCTGCAGTCACTCGTCAGACCTGCAGGGGTGCAGGCCTGTGGCATCA  
 CAGCCGTCCTCAACGTGTCGCCAGCTGCCCAACCACTTTGAGGGCCTTTCCGCTACA  
 AGAGTATCCCTGTGGAGACAACCAGATGGTGGAGATCAGTGCCTGGTTCAGGAGGCCA  
 TAGGCTTCATTGACTGGGTGAAGAACAGCGGAGCCGGGTGCTGGTGCCTGCCAGCGGG  
 GTATCTCGCGCTCTGCCACCATCTGTCTGGCATACCTCATGCAGAGTCCGCGTGTGCGGC  
 TGGACGAGGCCTTTGACTTCGTTAAGCAGCGCCGGGGGTGCATCTCCCCAACTTCAGTT  
 TCATGGGGCAGCTGCTGCAGTTTGAGACCCAGGTGCTGTGCTACTGAGGTGGTGCCTCTC  
 TGCTGCTGCCCACTGTGCTGGCAGGAGCTGACTGTGGACTGGTGGGCTCCCCCTG  
 GCCAGCACAGTCCCCTCACCTCTGGCAGGGCTGTACCTCCTCAGAGTTTCAGAAGCCCC  
 CACATGGGGGCTCTAGGAATGCCGGCATGCTGGTCTTTCCGACCTGGTGTCTTTCTGCTG  
 GGGGACTGAGGCTGGCCCTCATTGCGGGTCGGGAACCAAGGGTGTGTCTGCTCTTTCCCT  
 CCCCATCCTTGCCAGAAATCAGCTAGACGCTATACCGTGGACTCCCTGGTCCACCAC  
 CATGTTGAAGCCCTTGGCAGCCTGAGAGCTCCAAGGAACAAGCTGTGACAACAGGAGCC  
 CTGTCTGTGGTTCTGCTGCCAGGGCCTGGAGCCCAAGCCCTGTGTTCTGGGGAAGCT  
 GGGGACTTGGGAAGTGATGGGTGTGCATGTTGCGTGTGTCTGTCTGTGAGCCTTTCACA  
 CCTGTGCTGGCGCTGGAAAATTATTTGTGCTCAGCTGACATTTAACTCCCTCCCCCGC  
 TTCCTCTAGCCCTGTGGCAGGGGTTGGAACTTAGCACTTTATATTTATACAGAACAT  
 TCAGGATATGTCAATAAAATATTGTTATATTTAAAAAACAAAAAAAAAAAAAAAAAAAAA  
 AAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_004418

**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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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>RefSeq:</b>	<a href="#">NM_004418.2</a> , <a href="#">NP_004409.1</a>
<b>RefSeq Size:</b>	1702 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>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]