

Product datasheet for **SC107268**

DOCK2 (NM_004946) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DOCK2 (NM_004946) Human Untagged Clone
Tag:	Tag Free
Symbol:	DOCK2
Synonyms:	IMD40
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_004946, the custom clone sequence may differ by one or more nucleotides

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ATGGCCCCCTGGCGCAAAGCTGACAAGGAGCGGCACGGCGTGGCCATATACAACCTCCAAGGCAGCGGAG
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AGATGGGACTACTCTACACGATGGATTCCATGACTTAGTTGTCCTCAAGGGGGACAGCAAGAAGATGGAG
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 CAGATCCCAGACTCGCTGTCCACGGACCTGTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004946 unedited
 CGCGAATTCGGCACCCAGGAAAAGAGGAAGGAAGTGGGGCCCTGCGGCGCCAGCCACCCC
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 AGCTGACAAGGAGCGGCACGGCGTGGCCATATACTCAAGGCAGCGGAGCCCCCA
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 CAAGGAAGTGACAGTTGAGAAAAGAAGAATACTGAGAACATCATTCTCGAGAAATTCC
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 ACATGAGGAANGCACTGATAAAATCACAGAGCGTATCAAAGAGAAATGTCNAAAGACAGC
 CAGATTATGCATGTATCCCAGGATCTCTCATA

Restriction Sites:

NotI-NotI

ACCN:

NM_004946

Insert Size:

6000 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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.

RefSeq:

[NM_004946.1](#), [NP_004937.1](#)

RefSeq Size:

6050 bp

RefSeq ORF:

5493 bp

Locus ID:

1794

UniProt ID:

[Q92608](#)

Cytogenetics:

5q35.1

Protein Families:

Druggable Genome

Protein Pathways:

Chemokine signaling pathway, Fc gamma R-mediated phagocytosis

Gene Summary:

The protein encoded by this gene belongs to the CDM protein family. It is specifically expressed in hematopoietic cells and is predominantly expressed in peripheral blood leukocytes. The protein is involved in remodeling of the actin cytoskeleton required for lymphocyte migration in response to chemokine signaling. It activates members of the Rho family of GTPases, for example RAC1 and RAC2, by acting as a guanine nucleotide exchange factor (GEF) to exchange bound GDP for free GTP. Mutations in this gene result in immunodeficiency 40 (IMD40), a combined form of immunodeficiency that affects T cell number and function, also with variable defects in B cell and NK cell function. [provided by RefSeq, May 2018]