

Product datasheet for **RG209940**

PSD4 (NM_012455) Human Tagged ORF Clone

Product data:

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|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | PSD4 (NM_012455) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | PSD4 |
| Synonyms: | EFA6B; TIC |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG209940 representing NM_012455 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATGGGTGACTACAGACTCCCTGACCACCCAGCCCATGAAATTCTCAACCTGTAAGTGGGAGACA
GCCTGGAGCCCCACCCAGGAGAGTGCCCAAGGAAACGTGCAGCCATGAGGATCCACCGGAGCCTTCGA
GGAGCAAACCTGGGCCACTGACCCTCCTGAACCTACCAGACAAAATGTTCTCCCTGGGGCTCCGGTGTG
GAGCTCACACACCTGGGAGCTGGTCCATCAGGACGGGCTGGAGCCTTCCAGGAGCAAACCCGGGCCA
CTGACCCTCCTGAATCTACCAGACAAGATGCTCCTCCCTGGGGCTCCGGTGTGGAGCTCACACACCTGGG
GAGCCCCCTCTGCCAGAGGGAGCACAGGCAGAACACAGCATCACAGGGTACCAGTGAACAGCCATCTA
CCGGGGAGCCAAAGCAGAACCGGAGCAGTCCACACAGGTAGTGTCTGGGCAGGCATCCTGCAGGCC
AGATGTGTGTCCTAGACCTGGAGGAGGAGCTGGAGAAGACGGAAGGGCTCAAGGCTGGGCTGAAATGCTG
TCTCCCCACGCCCCCTGTGGACCTCCCCGGGACACGGGCTGCACTCCAGCCCACCTGAGAATGAAGAC
TCAGGGGAAGACAGCAGCGAGCCTGAGGGAGAGGGCCAGGCATGGCTGAGAGAGGGAACCCAGACTCTT
CCCCACAGTGGGAGCTGAGGAGGAGAGCATGTTCTTTCAGCAACCCCTCTTCTGGCGAGTCTTGCTC
AGAGAACAGTGCCTTCTGGAGAGTGCTTTTCTGGGCGGCTTCAGACTCCCATGCAGGTGTGAGGACTGGA
CCTGAGAGCCCAGCGACTCTGGAGCCTCCCTCCAGAAACACAGTGCCTGTGGGAGCTGGAAAGTGAGC
CAGATTTGGGGACGGCGCTGCTATCAGTGGGCATTGTACCCCTCCATTCCCTGTGCCCATCTATAAAC
ACACTCCATCTGCTGGGCCTCAGTGGCTGCCGCTGAGGGGCTCCTGCAGCACCTCCTGGTCACGGGGAG
AGTGAGGGAGATAGGCTTGGTCTGCTCCATCTGCAGCACCGTGTGTGGACGAAGCATTGACCTGGGAAT
CAGGATGTGTCGGATCTGATCTTGGCCCTGCTGCACATCCTGTGCAACCTTGGCCCTCTCTCAGCCCTGA
GGGCTGGCAGAGAGGAGTCTTTTTGGCCCCAGGTGACTCTTAACCTCCAGGACAGAGATGAGAGGGAG
GGTGGGACCCCCAGGAATCTCTCCCTGCACCTTGGCCCCCTGCCCTGGAGGAGCCAGCTTCTTCTC
CAGAGCCTAGCAGCCAGAATCTGAGAGCAGAGCCCTGGTCCCAGGCCAGCCCTGCATCGTCCCAGGA
GGCAGCCCGCAGCTTCAACACCACAGCTCAGGCATTTGCCAAGTGGACACTAGATGCTTACAGTCT



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TCACTCTTGAGACGGATGGGGAACAGCCAAGTTCCTTGAAGAAAAAGGAGGCAGGGGAGGCCCAAAAC
 CAGGCGAGGAAGTAAAGAGTGAAGGAACAGCCAGGCTGCAGAGACTGGAGACGTCCAGCCTGACATTCA
 CCTGACTTCTGCAGAACATGAGAATCTGAGGACACCGATGAACCTTCTTGGCTTCTGGGAGCCCTATG
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 ACAACAAGGTAGCCTGGAACCTGGCCTCACGCCTATCGCCTGGAGGGCTTCCGGAAGTCTGAAGTGGC
 TGCCTACCTGCAGAAGAACAATGACTTTAGCAGGGCTGGCTGAGGAGTACCTGTCTTCTTCCAGTTT
 GGAGCCAGAGTCTGGACCGAGCCCTCCGAGCTTCTCCAGGCCCTTGGTGTCTAGTGGGAGACTCAGG
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 AGAAGACGCCATGGGCAAGCGTGGCTGGAAGATGTTCCACACCTTACTGCGAGGGATGGTTCTCTACTT
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 CGGCTGACTGGCGCTTACCTTCTCCAGGCACCCACTGCCAAGGAGATGAGCTCCTGGATCGCGCGCAT
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 CGGCCATCCTGCCCGTGGGCCCGCCAGAGCTCCCTGGAGGAGCAGCATCGATCCCACGAGAAGTCCG
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 CTGCTGGTGGCCCGCTGCACTGCCCTCTGATGCTCTGGACCTGTGGGAGGAGCAGCTGGGAGGGAAG
 CTGGAGGCACTCGGGAGCCCAAGCTCAGCCTGAAGAAGTCCACTCGAGCCCGTCCCTGCACCAGGATGA
 GGCTCCACACGCGCAAGGTGAAGCGCAACATCTCAGAGCGCAGAACCTACCGGAAGATCATCCCTAAG
 CGGAACCGCAATCAGCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG209940 representing NM_012455

Red=Cloning site Green=Tags(s)

MMGDYRLPDHPQMEILNLYLGDSEPHPGEPRETCSHEDPPEPFEEQTWATDPPEPTRQNVPPWGSV
 ELTHLGSVWHQDLEPCQEQTRATDPPESTRQDAPPWGSVELTHLGSPSAQREHRQNTASPGSPVNSHL
 PGSPKQNRSTSTQVFWAGILQAQMCVLDLEEELEKTEGLKAGLKCLPTPPVDLPGDTGLHSSPPENED
 SGEDSSEPEGEGQAWLREGTPDSSPQWGAEESMFFSNPLFLASPCSENSASGECFSAASDSHAGVRTG
 PESPATLEPPLPEDTVLWELESEPDLDGAAISGHCTPPFPVPIYKPHSICWASVAAAEGAPAAPPGHGE
 SEGDRLGPAPSAAPCVDEALTWESGCVGSDLGPAHPVQPWASLSPEGWQRGGPFWPQVTLNSQDRDERE
 GGHPQESLPCTLAPCPWRSPASSPEPSSPESESRRGPRPSPASSQEGSPQLQHSSGILPKWTLASQS
 SLLLETGGEQPSLKKKEAGEAPKPGEEVKSEGTARPAETGDVQPDIIHLTSAEHENLRTPMNSSWLPGSPM
 PQAQSPPEGQRPPAGDKLANGVRNNKVAWNLASRLYRLEGFRKSEVAAYLQKNDFSRVAEEYLSFFQF
 GGQSLDRALRSFLQALVLSGETQERERILYQFSRRFHHCNPGIFPSVDSVHTLTCAIMLLNTDLHGQNI
 KSMSCQEFITNLNGLRDGGNFKELLKALYWSIRSEKLEWAVDEEDTARPEKAQPSLPAGKMSKPFQLA
 QDPTVPTYKQIGILARKMHQDADGKTPWGKRGWKMFTLLRGMVLYFLKQGEDHCLLEGESLVGQMVDEPV
 GVHSLATPATHYTKKPHVFLRTADWRLYLFQAPTAKEMSSWIARINLAAATHSAPPFPAVGSQRRFV
 RPILPVGPAQSSLEEQRSHENCLDAAADDLDDLQRNLPERRGRGRELEEHLRKEYLEYEKTRYETYVQ
 LLVARLHCPDALDLWEEQLGREAGGTREPKLSLKKSHSSPSLHQDEAPTTAKVKRNIERRTYRKIIPK
 RNRNQL

TRTRPLE - GFP Tag - V

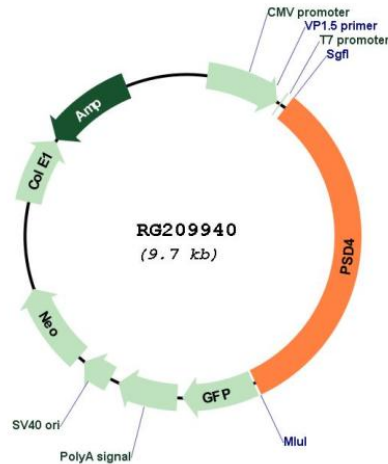
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_012455

ORF Size: 3168 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.

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| 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: | <ol style="list-style-type: none">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: | <u>NM_012455.2</u> , <u>NP_036587.2</u> |
| RefSeq Size: | 5039 bp |
| RefSeq ORF: | 3171 bp |
| Locus ID: | 23550 |
| UniProt ID: | <u>Q8NDX1</u> |
| Cytogenetics: | 2q14.1 |
| Protein Pathways: | Endocytosis |
| Gene Summary: | Guanine nucleotide exchange factor for ARF6 and ARL14/ARF7. Through ARL14 activation, controls the movement of MHC class II-containing vesicles along the actin cytoskeleton in dendritic cells. Involved in membrane recycling. Interacts with several phosphatidylinositol phosphate species, including phosphatidylinositol 3,4-bisphosphate, phosphatidylinositol 3,5-bisphosphate and phosphatidylinositol 4,5-bisphosphate.[UniProtKB/Swiss-Prot Function] |