

Product datasheet for **RG211198**

DOCK2 (NM_004946) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DOCK2 (NM_004946) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DOCK2
Synonyms:	IMD40
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG211198 representing NM_004946 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGGCCCCCTGGCGCAAAGCTGACAAGGAGCGGCACGGCGTGGCCATATACAACCTCCAAGGCAGCGGAGCCCCCAGCTCTCCCTGCAGATCGGCGATGTGGTGCGAATACAGGAGACGTGTGGAGACTGGTATAGGGGATACCTCATAAAGCACAAAATGTTACAGGGCATTTTTCTAAGTCATTTATCCACATCAAGGAAGTGACAGTTGAGAAAAGAAGAAACTGAGAACATCATTCTGCAGAAATCTCTGGCACAAGAAGTGACAACGACACTTTGGGAATGGGAAGCATCTGAAACAACCTATGTGGCCAGCAAAAAGGAGCGTTTTCTCCAGTGCAGTCCATGATGTACGATCTGATGGAGTGGAGTCCCAGCTTCTCTCAGGAACCTTACCCAAGGATGAGCTGAAGGAAGTGAAGCAGAAAAGTCAAGTCCAAAATGACTATGGCAACAAAATCCTTGAGCTTGATTGATTGTGCAGAGATGAAGACGGAAATATCTTGGACCCTGATAATACCAGTGTGCATCAGCTTGTCCATGCACATGAGGAAGCAACTGATAAAATCACAGAGCGTATCAAAGAAGAAATGTCAAAGACCAGCCAGATTATGCAATGTATCCCAGGATCTCCTCATCCCCACCCATAGCCTCTATGTGTTGTGAGAACTTTGTGTGCAGAAATGGGGAAGATGCTGAGCTTTCATGTCTCTACGACCCCAACAAGCAAACGGTCATAAGTGAGAACTACCTAGTGCAGTGGGCGAGCCGGGCTTCCCTAAGGAGATTGAGATGCTCAACAATCTGAAGTGGTCTTACGGATCTTGAAACAAGACCTCAACAGGGATAAAATTTACTTGATTTGTCAAATAGTCCGGGTCCGCAAGATGGATCTTAAGGATACTGGTGCAAAGAAGTGCACGCAGGGACTGAGGAGGCCCTTTGGGGTGGCAGTATGGATATAACAGACATCATCAAGGGGAAAGCAGAGAGTGATGAAGAAAAGCAGCACTTCACTCTTTTACCCTGGTTACAGCTGAGAATGACTTCTACACAGCCTGCTGGGCAAAGTCATAGCCTCCAAGGGGACAGTGGAGGGCAAGGCCTCTGGGTGACCATGAAGATGCTGGTGGGTGACATCATTAGATTTCGCAAGGACTATCCACACCTGGTGGACAGGACCACCGTGGTGGCCAGGAAGCTGGGATCCAGAGATCATCATGCCAGGGATGTCAGGAACGACATCTACTTCTTACAAGGTGACTTTGACAAGTACAACAAGACCACACAGAGGAATGTGGAAGTCATCATGTGTGTGTCGCGGAGGATGGCAAAACGCTGCCTAATGCAATTTGCGTGGAGCAGGGGACAAGCCCATGAATGAGTATCGCTCCGTTGTACTATCAAGTCAAACAGCCACGCTGGATG



[View online >](#)

GAAACAGTCAAGGTGGCTGTCCTATTGAAGACATGCAGAGGATCCATCTGCGATTTCATGTTTCGACATC
GGTCATCTCTGGAATCTAAAGATAAAGGAGAAAAGAACTTTGCCATGTCCTATGTGAAGCTGATGAAAGA
AGATGGGACTACTCTACACGATGGATTCCATGACTTAGTTGTCCTCAAGGGGGACAGCAAGAAGATGGAG
GATGCCAGCGCATACCTGACCCTTCCTTCTATCGACACCATGTGAAAAACAAGGGGGCCACGCTGAGCA
GGAGCTCCAGCAGTGTGGGGGGCTTCTGTGAGTCCCGGATGTGTTCTCCATTTCCACCCTGGTGTG
CTCCACAAAGCTCACTCAGAATGTGGGCTTGTGGGTTGCTGAAGTGGCGTATGAAGCCTCAACTGCTA
CAGGAAATTTAGAAAAGTTGAAGATTGTGGATGGAGAGGAAGTGGTGAAGTTTCTCCAGGATACTCTGG
ATGCCCTCTTCAACATCATGATGGAGCATTCTCAAAGTGATGAATATGACATCCTCGTCTTTGATGCCTT
GATTTACATAATAGGACTCATTGCGAGACCGAAAATTTCCAGCATTTC AACACCCGTTCTGGAGGCTTACATC
CAACAGCATTTCCAGTGCACCTTGGCTTACAAGAAATTGATGACAGTGTGAAGACTTACTTGGATACCT
CCAGCAGAGGGGAGCAATGTGAGCCAATCTAAGAACGCTGAAGGCTTTGGAATATGTGTTCAAGTTCAT
TGTTCCGTCGAGGACATTATTTTACAGCTTATGAAGGCAAAGAACAGATGGAGTTGAAGAATCCATG
AGACGGCTCTTTGAATCCATCAACAATCTGATGAAAAGTCAATACAAAACCTACCCTTTTGCAGGTGG
CGGCTTTGAAATACATCCATCTGTCTGCATGATGTAGAAATGGTCTTTGATGCGAAGTACTCAGCCA
ACTCCTGTATGAGTTCTACACCTGCATCCCTCCTGTGAAACTCCAGAAGCAGAAAGTACAGTCTATGAAT
GAGATAGTCCAGAGCAACCTCTTAAAAAGCAAGAATGCCGGGACATTCTGCTTCTGTGCATCACCAAAG
AGCTGAAGGAGCTGCTGGAGCAGAAGGATGACATGCAACACCAGGTCCTGGAGAGGAAGTACTGCGTTGA
ATTGCTCAACAGCATCTTGAAGTCTTAGCTACCAGGATGCGGCCTTACCTACCACCATACAGGAG
ATCATGGTCCAGCTGCTGCGGACAGTGAACCGGACAGTCAACCATGGGCCGGGATCACATTCTGATTA
GTCACCTTTGTGGCATGTATGACAGCCATCTAACCAGATGGGTGACCAGCACTACTCCTTCTACATTGA
GACCTTCCAGACCAGCTCTGAACCTGTGGACTTCTTGTGAGACCTTCATCATGTTCAAGGACCTCATT
GGAAAGAACGCTGACCTGGAGACTGGATGGCCATGAGCATGGTTCAAAACAGGGTCTTCTGAGAGCTA
TCAACAAGTTTGCAGAAACCATGAACCAAGTTCCTAGAACACACGAACCTTTGAGTTCAGCTGTGGAA
CAACTATTTTCTGCGAGTGGCTTTTATCACCCAGGATTCTCTGCAGCTGGAGCAGTTCTCACACGCC
AAATACAACAAAATCCTGAATAAGTATGGGACATGAGACGGCTCATTGGCTTCTCCATCCGTGATATGT
GGTACAAGCTTGGTCAGAACAAAATCTGCTTCTCCAGGCATGGTAGGACCTATATTAGAGATGACACT
TATCCCTGAGGCTGAGCTCCGGAAGCCACCATAACCAATCTTCTCGACATGATGCTGTGTAATATCAA
AGAAGTGGGGATTTCAAAAAGTTTGAACGAAATCATCTGAAGCTGGACCACGAGGTAGAAGGGGGCC
GAGGCGACGAGCAGTACATGCAGCTCCTGGAGTCAATCCTGATGGAATGTGCTGCAGAGCACCAACCAT
TGCCAAGTCGGTGGAGAACTTCGTGAACCTGGTCAAAGGCCTCCTGGAGAAGCTGCTGGATTACCGGGT
GTGATGACAGATGAGAGCAAAGACAACCCGATGAGCTGCACCGTGAACCTGCTGAATTTCTACAAGATA
ACAACAGGGAGGAGATGTACATAAGGTACTGTACAAACTCCCGCATCTTACCTGGACTGTGACAAATTA
CACAGAGGCTGCCTACACGCTCCTTCTCCACACCTGGCTTCTCAAGTGGTCCGGATGAGCAGTGTGCATCA
CAGGTCATGCAGACAGGCCAGCAGCACCCCCAGACACACCCGGCAGCTGAAGGAGACGCTCTACGAGACCA
TCATAGGCTACTTTGACAAAGGAAAGATGTGGGAAGAGGCCATAAGTCTGTGCAAGGAGCTGGCGGAACA
GTACGAGATGGAGATCTTACTATGAGCTGCTCAGCCAGAACCTGATCCAGCAGGCAAAATTTCTATGAA
AGCATCATGAAAATCCTCAGGCCAAACAGACTACTTTGCTGTTGGATACTACGGCCAGGGATCCCCT
CCTTCTGCGGAACAAAGTGTTCATCTACCGCGGAAGGAATATGAGCGAAGAGAAGATTTCCAGATGCA
GCTGATGACCCAGTTCCTCAATGCAGAGAAGATGAACACCACCTCTGCCCCGGGAGATGATGTGAAGAAT
GCCCCAGGCCAGTATATCCAGTGTCTACTGTCCAGCCTGTCTTGGATGAACATCCAGGTTCAAGAATA
AGCCAGTGCCTGACCAGATTATAAACTTCTACAAATCCAACCTACGTGCAAAGTTCCACTACTCCCGGCC
CGTGCGCAGGGGGACCGTAGACCCAGAGAATGAGTTTGCTTCCATGTGGATTGAGAGAACCTCCTTCGTG
ACTGCATAACAAGCTGCCGGGATCCTGCGCTGGTTTGGAGTGGTGCACATGTCGACAGACCACAATTAGTC
CTCTGGAGAATGCCATAGAAACCATGTCCACGGCCAATGAGAAGATCCTGATGATGATAAACAGTACCA
GAGTGTGAGACCCTCCCATCAACCCACTCTCCATGCTCCTGAACGGGATTGTGGACCCTGCTGTCATG
GGAGGCTTCGCCAAGTATGAGAAGGCCTTCTTCACTGAAGAGTATGTCAGGGACCACCTGAGGACCAGG
ACAAGCTGACCCACCTCAAGGACCTGATTGCATGGCAGATCCCCTTCTTGGGAGCTGGGATTAAGATCCA
TGAGAAAAGGGTGTGAGATAACTTGCAGCCCTTCCATGACCGGATGGAGGAATGTTTCAAGAACCTGAAA
ATGAAGGTGGAGAAGGAGTACGGTGTCCGAGAGATGCCTGACTTTGACGACAGGAGAGTGGGCCGTCCTCA
GGTCTATGCTGCGCTCATACAGACAGATGTCCATCATCTCTGCTTCCATGAATTCTGACTGCAGCAC
CCCCAGCAAGCCTACCTCAGAGAGCTTTGACCTGGAATTAGCATCACCCAAGACGCCGAGAGTGGAGCAG
GAGGAACCGATCTCCCCGGGAGCACCTGCCTGAGGTCAAGCTGCGGAGGTCCAAGAAGAGGACAAAGA

GAAGCAGCGTAGTTTTGCGGATGAGAAAGCAGCTGCAGAGTCGGACCTGAAGCGGCTTTCCAGGAAGCA
 TGAGTTCATGAGTGACACCAACCTCTCGGAGCATGCGGCCATCCCCCTCAAGGCCTGTGTCTCTCTCAA
 ATGAGCTTTGCCAGCCAGTCCATGCCTACCATCCCAGCCCTGGCGCTCTCAGTGGCAGGCATCCCTGGGT
 TGGATGAGGCCAACACATCTCCCCGCTCAGCCAGACCTTCTCCAACCTCAGATGGTGACAAGAAGAC
 ACTCACACGGAAGAAGGTCAATCAGTTCTCAAGACAATGCTGCCAGCAAATCGGCTGAAGAAGGCAA
 CAGATCCCAGACTCGCTGTCCACGGACCTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG211198 representing NM_004946
 Red=Cloning site Green=Tags(s)

MAPWRKADKERHGVAIYNFQSGAPQLSLQIGDVRVRIQETCGDWYRGLIKHKMLQGIFFPKSFIHIKEVT
 VEKRRNTENIIPAEIPLAQEVTTTLWEWGSIWKQLYVASKKERFLQVQSMYDLMEWRSQLLSGTLPKDE
 LKELKQKVTSKIDYGNKILELDLIVRDEEDGNILDPDNTSVISLFHAHEEATDKITERIKEEMSKDQPDYA
 MYSRISSSPHSLYVFRNFVCRIGEDAELFMSLYDPNKQTVISENYLVRWGRGFPKEIEMNLNKVVF
 TDLGNKDLNRDKIYLICQIVRVGKMDLKDGTAKKCTQGLRRPFGVAVMDITDIKGAESDEEKQHFIPF
 HPVTAENDFLHLLGKVIASKGDSGGQGLWVTMMLVGDIIQIRKDYPHLVDRTTVVARKLGFPEIIMP
 DVRNDIYITLLQGDYKNTTQRNVEIMCVCAEDGKTLPAICVAGDKPMNEYRSVVYVQVQPRWM
 ETVKVAVPIEDMQRIHLRFMRHRSLSKDKGEKNFAMSYVKLMKEDGTTLDHGFHDLVVLKGDSSKME
 DASAYLTLPSYRHHVENKATLSRSSSSVGGLSVSSRDVFSISTLVCSTKLTQNVGLLGLLKWMLKQQL
 QENLEKLIKVDGEEVVKFLQDLDALFNIMMEHSQSDEYDILVFDALYIYIIGLIADRKFQHFNTVLEAYI
 QQHF SATLAYKKLMTVLKTYLDTSSRGEQCEPILRTLKALEYVFKFIVRSRTLFSQLYEGKEQMEFEESM
 RRLFESINMLKMSQYKTTILLQVAALKYIPSVLHDVEMVFDKLLSLLYEFYTCIPPVKLQKQKQVQSMN
 EIVQSNLFFKKQECRDILLPVITKELKELLEQKDDMQHQLERKYCVLELLNSILEVLSYQDAAFYHHIQE
 IMVQLLRVTNRVITMGRDHILISHFVACMTAILNQMGDQHSFYIETFTSSELVDFLMEFIMFKDLI
 GKNVYPGDWMMAMSMVQNRVFLRAINKFAETMNQKFLKHTNFEFQLWNNYFHLAVAFITQDSLQLEQFSHA
 KYNKILNKYGDMMRRLIGFSIRDMWYKLGQNKICFIPGMVGPILEMTLIPAEELRKATIPIFFDMMLCEYQ
 RSGDFKFFENEIILKLDHEVEGGRGDEQYMQLLESILMECAAHPTIAKSVENFVNLVKGLLEKLLDYRG
 VMTDESKDNRMCTVNLLNFYKDNREEMYIRYLYKLRDLHLDCDNYTEAAYTLHLHTWLLKWSDEQCAS
 QVMQTGQQHPQTHRQLKETLYETIIGYFDKGMWEEAISLCKELAEQYEMEIFDYELLSQLLIQQAKFYE
 SIMKILRPKPDYFVGYGQGFPSFLRNKVFYIRGKEYERREDFQMQLMTQFPNAEKMNNTSAPGDDVKN
 APGQYIQCFYVQVLDLDEHPRFKNKPVDPQIINFYKSNYVQRFHYSRPPVRRGTVDPENEFASMWIERTSFV
 TAYKLPILRWFEVHMSQTTISPLENAIETMSTANEKILMMINQYQSDETLPIINPLSMLLNGIVDPAVM
 GGFAYEKAFTEEYVRDHPEDQDKLTHLKDLIAWQIPFLGAGIKIHEKRVSDNLRPFHDMEECFKNLK
 MKVEKEYGVREMPDFDDRRVGRPRSMRLSYRQMSIISLASMNSDCSTPSKPTSEFDELEASPKTPRVEQ
 EEPISPGSTLPEVKLRRSKRTRSSVVFADKAAAESDLKRLSRKHEFMSDTNLSEHAAIPLKASVLSQ
 MSFASQSMPTIPALALSVAGIPGLDEANTSPRLSQTFLLQLSDGDKKTLTRKKVNQFFKTMASKSAEEGK
 QIPDSLSTDL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

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](#)

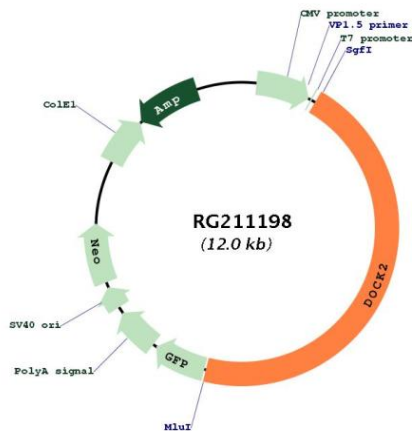
Cytogenetics: 5q35.1

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]

Product images:



Circular map for RG211198