

Product datasheet for **RG226400**

IQSEC2 (NM_001111125) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: IQSEC2 (NM_001111125) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: IQSEC2
Synonyms: BRAG1; IQ-ArfGEF; MRX1; MRX18; MRX78
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG226400 representing NM_001111125
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGGATCGCC

ATGGAGGCGGGTCGGGCCCCGGGCGGCCGGGATCCGAGAGCCAAATCGGGCCGTGGAGTACCTGC
TGGAGCTGAACAACATCATCGAGAGCCAGCAGCTGCTGGAAACCCAGCGCGCGCATCGAGGAGCT
GGAGGGCCAGCTGGACCAGCTCACCCAGGAGAACCCGGACCTGCGAGAGGAGAGCCAGCTGCACCGCGG
GAGCTGCACCGGACCCACGGCGCGGGATAGCCCGGGCCGAGAGCCAGTACCAGAACCTGCGCG
AGACCCAGTTCCACCACCGGAGCTGCGGGAGAGCCAGTTCACCAGGCGGCCGGGACGTGGGCTACCC
GAACCGGGAAGGCGCCTACCAGAATCGGGAGGCTGTGTATCGGGACAAGGAGCGGGACGCCTCCTACCCG
CTCCAGGACACTACCGTTACACAGCCCGGAGCGTGACGTGGCCAGTGCCACCTGCACCACGAGAACC
CAGCCCTGGGTCGCGAGCGTGGCGGGCGGGAGGCCGGGCCCGCGCACCCGGGCGCGAGAAGGAAGCGGG
CTATTCGGCGGCGGTGGGCGTGGGGCCGGCCACCGCGGAGCGGGGCCAGCTGAGCCGTGGCGCATCC
AGGAGCTCCAGTCCCGCGCCGGCGGAGGCCACAGCACCAGTACCAGCACCAGCCCGGCCACGACCTCC
AGAGAAAATCTGATGGTGAATTCAGAACAGTCAGTGGAGGGTGATGCCCCAGGCAGTGACCTGAG
CACAGCGGTTGATAGTCTGGAGCCAACCCCTACCGGCTGAGCCAGCTGCCCCCTCCAGCAGCCAC
ATGGGGGCCCCCTGCTGGAGTGGCCTTCCCTGGGCTCAGCGGGCAGCCTCCAGCCAGCCAGTGTG
CCCTGAGGAAGCAGGAGGAGGAGATAAAGCGCTCCAAGCCCTATCGGACAGCTATGAACTCTCCAC
AGACCTGCAGGACAAGAAGGTGAAATGCTGGAGAGGAAGTATGGGGCTCCTTCTGAGCCGAGGGCT
GCCAGGACCATCCAGACAGCCTCCGCCAGTACCGCATGAACAAGAACTTTGAGCGGCTACGAGCTCAG
CCTCAGAGAGCCGATGTCCCGCCGATCATCCTTTCCAACATGCGGATGCAGTTCTCCTTTGAGGAGTA
TGAGAAGGCACAGAACCCCGTACTTCGAGGGCAAGCCTGCCTCGTGGACGAGGGTGCCATGGCTGGT
GCCCGGAGCCACCGCTTGAACGGGGCTCCCATATGGAGGCTCCTGTGGTGGGGCATCGATGGTGGT
GAAGCTCCGTACCACATCTGGAGATTTTCTAATGACATCACAGAACTTGAGGACTCCTTCTCAAACA
GGTAAAGTCTCTGGCTGAATCCATCGACGAAGCCCTGAACTGCCACCCGTAGGGCCCATGTCTGAGGAG



[View online >](#)

CCAGGGTCAGCCCAGCTGGAGAAGCGGGAGTCAAAGGAACAGCAAGAGGACAGCTCAGCCACATCCTTCA
GTGATCTTCCCCTCTACCTGGATGACACAGTTCCCCAACAATCCCCTGAGCGACTGCCAGCACAGAACC
CCCACCCAGGGCCGGCCGAGTTCTGGGGCCAGCCCCCTCCCAGCAGTTCTCCACCAGTGCCATCA
GGAACCCGGGAAGACGGTAGCCGTGAGGAAGGCACTCGCAGGGGTCCCGGGTCTGGAGTGCCGGGATT
TCCGGCTGCGGGCTGCCACCTCCCCTGCTTACCATTGAGCCTCCTAGTGACAGCTCCGTGGACCTGAG
TGACCGCTCAGATCGCGGCTCTGTCCACCGCCAGCTGGTGTATGAGGCTGATGGCTGCAGCCCCATGGG
ACCTGAAGCACAAAGGGCCACCAGGCAGGGCCCGATCCCACACCGCCACTACCCAGCCCCTGAAGGCC
CAGCCCCAGCCCCACCAGGGCCCTGCCACCAGCCCCAACAGTGGCAGTGGGCCAGTGGTGTGGCTGG
GGTCCGAGGTTGGGAAGTGCGAGGCAGCAGGCGAGAAGTCTGATGGTGGAGATAACGAGAGCCTTGAG
AGCTCCAGCAATCCAATGAGACCATCAACTGCAGCTCCGGCTCCTCTTCTCGGGACAGTCTAAGGGAGC
CTCCGGCTACCGGCTGTGCAAGCAGACTTACCAGCGGGAGACAAGGCATAGCTGGGACTCGCCAGCTTT
CAACAATGATGTGGTCCAGAGCGGCACACTACCGAATCGGCCTCAACCTCTTCAACAAGAAGCCAGAGAAG
GGTATCCAGTATCTGATCGAGCGGGCTTCTGTGACACACCGGTGGGAGTGGCTCACTTCATCCTGG
AGCGGAAAGGCCCTCAGCCGGCAGATGATAGGGGAATTCAGGGAACCGGCAGAAGCAGTTCAACAGAGA
CGTGTGGACTGTGTGGTGGATGAGATGGACTTCTCCTCATGGATCTGGATGATGCGCTCCGGAAGTTC
CAGTCCCATATCCGGGTTCAAGGTGAGGCCAGAAAGTGAGCGACTCATCGAAGCCTTACGCCAGCGGT
ACTGTGTCTGTAACCCAGCCCTCGTGCGCCAGTTCGGAAACCCAGACACCATCTTCATCCTTGTCTTTGC
CATCATCCTCCTCAATACCGACATGTACAGTCCCAGCGTCAAAGCTGAACGAAAGATGAAACTAGATGAC
TTCATCAAGAACCTGAGAGGGGTTGACAATGGTGAAGACATCCCCGAGACCTCCTGGTGGGCATCTACC
AGCGCATCCAGGGGCGTGAAGTCCGCGACCAACGATGACCATGTGTCCCAGGTGCAGGCTGTGGAGCGCAT
GATTGTGGAAAGAAACAGTCTGTCTCTCCCTACCGTCGACTGGTTTGTCTGCCAGCTCTACGAG
GTGCCAGATCAAACCGCCCCAGAGGCTAGGGTTGCATCAGCGGGAGGTCTTCTCTTCAATGATCTCC
TTGTGGTCACAAAATTTCCAGAAGAAGAAGATCTTGGTGACGTACAGTTTCCGTAGTCTTCCCCTC
CTGGAAATGCACATGCAGCTCTTCCAGAATTCATATTACCAGTTTGGGATCAAGTTGCTGTCTGCAGTA
CCTGGTGGGAGCGAAAAGTCTCATCTTCAATGCCCCAGCCTCCAGGACCGGCTGCGCTTTACAT
CCGACCTGCGCGAGTCCATTGCGGAGGTGCAGGAGATGGAGAAATACCGTGTGGAGTCGGAGCTGGAGAA
GCAGAAAGGATGATGCGGCCTAACGCCTCACAGCCTGGAGGGGCAAGGACTCAGTGAATGGGACGATG
GCCCGCAGTAGCCTGGAGGACACTTACGGGGCAGGCGATGGGCTCAAACGGGGCGCACTCAGCAGTTCCC
TGCGAGACCTCTCTGATGCAGGGAAGCGGGGGCGGCGTAACAGCGTGGGATCGCTGGACAGCACCATCGA
AGGGTCTGTTATTAGCAGTCCACGCCCTACCAGAGGATGCCACCTCCGCCCCCACCCTCCGCCAGAG
GAGTACAAGAGCCAGAGGCCCTCCTCAACTCCTCATCCTTCTGGGCTCCCTATTTGGAAGCAAGCGGG
GCAAGGGGCCCTTCCAGATGCCACCACCGCCAACAGGCCAGGCCTCTGCCTCCTTTCATCTGCTTCTTC
CACGCACCACCACCACCACCACCATCATGGCCATAGCCACGGTGGCCTGGGGGTGCTGCCTGATGGG
CAGTCCAAGCTCCAGGCCCTGCATGCCAGTATTGCCAAGGACCGGGCCCTGCCCGCCACCCTACCTCC
CACCCAGCAGCCCTCTTCCCCACCTCCCCAGCAGCCCCACCCTTGCCCCAGCTGGGCTCCATTCC
ACCGCCTCCCGCTCAGCCCCACCTGTGGGGCCACATCGCCACTTCCACGCCATGGCCAGTCCCAGGG
CCCCAACACTATACCTTGGGCGGCCAGGACGGGACCCAGACGGGGGCTGGAGGACACCCTCAGTTTG
CTCCACATGGCCGCCACCCCTGCACCAGCCACATCCCAGTCCCCCTGTACAGTCTGCCCCCCAGCA
CCCTCCAGCCCCAACAGGGCCCTAAGCACTTTCATCTTACGCCACCACCCACAGATGATGCCAGCAGCA
GGCGCGGCTGGGGCCCTGGATCCCGGCCACCAGGGGCTCCTACTCCACCCCCACCACCCCAAGTAC
CATTGTACCCACTCACCCATCCACCCACCCCTCCTATCCACCCCTCCCCCACCCTCCCTCACAC
CCCGCACTCACCCCTTCCACCCACTCCCCCATGGCCGCTGCACGCCTCTGGGCCCTGGCACAGCC
AACCCCCCAGTGCAACCCCAAGGCCAAGCCAGCCGGATCAGCACCGTGGT

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG226400 representing NM_001111125
 Red=Cloning site Green=Tags(s)

```

MEAGSGPPGGPGSESPNRAVEYLLELNNIIESQQQLLETQRRRIEELQGLDQLTQENRDLREESQLHRG
ELHRDPHGARDSPGRESQYQNLRETQFHRELRESQFHQAARDVGYPNREGAYQNRQREAVYRDKERDASYP
LQDTTGYTARERDVAQCHLHHENPALGRERGGREAGPAHPGREKEAGYSAAVGVGPRPPRERQQLSRGAS
RSSSPGAGGGHSTSTSTSPATTLQRKSDGENSRTVSVEGDAPGSDLSTAVDSPGSQPPYRLSQLPPSSSH
MGPPAGVGLPWAQRARLQPASVALRKQEEEEIKRSKALSDSYELSTDLQDKKVEMLERKYGGSFLLSRAA
ARTIQTAFRQYRMNKNFERLRSSASESRMSRRIILSNMRMQFSFEEYEKAQNPAFYEGKPAASLDEGAMAG
ARSHRLERGLPYGGSCGGIDGGSSVTTSGEFSDNITELEDSFSKQVKSLEAIDEALNCHPSGPMSEE
PGSAQLEKRESKEQEDSSATSFSDLPLYLDDTVPQQSPERLPSTEPPPQGRPEFWAPAPLPPVPPVPS
GTREDGSREEGTRRGGCLECRDFRLAAHLPLLTIEPPSDSSVDLSDRSRGSVHRQLVYEADGCSPHG
TLKHKGPPGRAPIPHRHYPAPGPAPAPPGLPPAPNSGTGPSGVAGGRRLGKCEAAGENSDDGDNESLE
SSSNSNETINCSSGSSSRDSLREPPATGLCKQTYQRETRHSWDSPAFNNDVVQRRHYRIGLNLFNKKPEK
GIQYLIERGFLSDTPVGVAFHILERKGLSRQMI GEF LGNRQKQFNRDVLDVVDEMDVSSMDLDDALRKF
QSHIRVQGEAQKVERLIEAFSQRVCVCPALVRQFRNPDTIFILAFAILLNTDMYSPSVKAERKMKLDD
F.IKNLRGVDNGEDI PRDLLVGIYQRIQGRELRTNDDHVSQVQAVERMIVGKPKVLSLPHRRLVCCQQLYE
VPDPNRPQRLGLHQREVFLFNDLLVVTKIFQKKILVTYSFRQSFPLVEMHMQLFQNSYYQFGIKLLSAV
PGGERKVLIIFNAPSLQDRLRFTSDLRESIAEVQEMEKYRVESELEKQKGMMPNASQPGGAKDSVNGTM
ARSSLEDTYGAGDGLKRGALSSSLRDLSDAGKRGRRNVSGLDSTIEGSVIVSSPRPHQRMPPPPPPPEE
EYKSQRPVSNSSSFLGSLFGSKRKGPFQMPPTGQASSSSSASSTHHHHHHHHGHSHGGLGVLDPG
QSKLQALHAQYCGPGPAPPYLPQQPSLPPPPQPPPLPQLGSI PPPASAPPVGP HRHFHAHGVPVG
PQHYYTLGRPGRAPRRGAGGHPQFAPHGRHPLHQPTSPLPLYSPAPQHPPAHKQGPKHFISSHPPQMPMAA
GAAGGPGSRPPGGSYSHPHHPQSPLSPHSPIPPHSYPPPLPPSPHTPHSPLPPTSPHGPLHASGPPGTA
NPPSANPKAKPSRISTVV
  
```

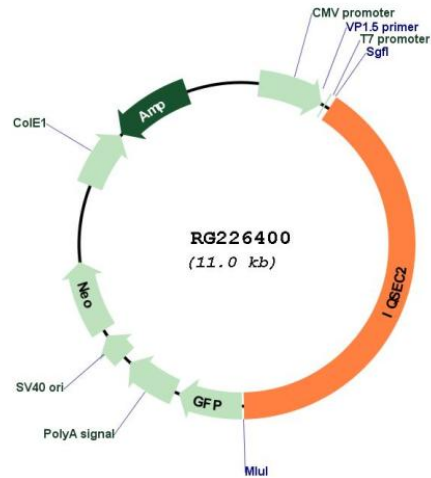
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_001111125

ORF Size: 4464 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.

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_001111125.3](#)

RefSeq Size: 6004 bp

RefSeq ORF: 4467 bp

Locus ID: 23096

UniProt ID: [Q5JU85](#)

Cytogenetics: Xp11.22

Protein Pathways: Endocytosis

Gene Summary: This gene encodes a guanine nucleotide exchange factor for the ARF family of small GTP-binding proteins. The encoded protein is a component of the postsynaptic density at excitatory synapses, and may play a critical role in cytoskeletal and synaptic organization through the activation of selected ARF substrates including ARF1 and ARF6. Mutations in this gene have been implicated in nonsyndromic X-linked cognitive disability. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Aug 2011]