

## Product datasheet for **SC114905**

### **RIM2 (RIMS2) (NM\_014677) Human Untagged Clone**

#### Product data:

|                           |                                                                                                   |
|---------------------------|---------------------------------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                                               |
| Product Name:             | RIM2 (RIMS2) (NM_014677) Human Untagged Clone                                                     |
| Tag:                      | Tag Free                                                                                          |
| Symbol:                   | RIM2                                                                                              |
| Synonyms:                 | CRSDS; OBOE; RAB3IP3; RIM2                                                                        |
| Mammalian Cell Selection: | None                                                                                              |
| Vector:                   | <u>pCMV6-XL4</u>                                                                                  |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                                                            |
| Fully Sequenced ORF:      | >NCBI ORF sequence for NM_014677, the custom clone sequence may differ by one or more nucleotides |

ATGCAATTTGAGACATTGCGCCAGGTCTGCAATTCTGTTTTATCTCATTTTCATGGGTTTTTTCATCCC  
 CACCAAATATCTTACAAAATGAGCTTTTTGGACAAACACTGAACAATGCAAGGAAAAGAAGCCCATCTGT  
 GTCCAGAGATCAGAATAGAAGATACGACCAAAGGGAAGAAAGAGAGGAATATTCACAGTATGCTACTTCG  
 GATACCGCAATGCCTAGATCTCCATCAGATTATGCTGATAGGCGATCTCAACATGAACCTCAGTTTTATG  
 AAGACTCTGATCATTTAAGTTATAGGGACTCCAACAGGAGAAGTCATAGGCATTCCAAAGAATATATTGT  
 AGATGATGAGGATGTGGAAGCAGAGATGAATACGAAAGGCAAAGGAGAGAGGAAGAGTACCAGTCACGC  
 TACCGAAGTGATCCGAATTTGGCCCGTTATCCAGTAAAGCCACAACCCTATGAAGAACAAATGCGGATCC  
 ATGCTGAAGTGTCGGAGCACGGCATGAGAGAAGGCATAGTGATGTTTCTTTGGCAAATGCTGATCTGGA  
 AGATTCCAGGATTTCTATGCTAAGGATGGATCGACCATCAAGGCAAAGATCTATATCAGAACGTAGAGCT  
 GCCATGGAAAATCAGCGATCTTATTCAATGGAAAGAACTCGAGAGGCTCAGGGACCAAGTTCTTATGCAC  
 AAAGGACCACAAACCATAGTCTCTACCCCAAGGAGGAGTCCACTACCCATAGATAGACCAGACTTGAG  
 GCGTACTGACTCACTACGGAAACAGCACCACTTAGATCCTAGCTCTGCTGTAAGAAAAACAAACGGGAA  
 AAAATGGAACAATGTTAAGGAATGATTCTCTCAGTTCAGACCAGTCAGAGTCAGTGAGACCTCCACCAC  
 CAAAGCCTCATAAATCAAAGAAAGGCGGTAAAAATGCGCCAGATTTCTGTTGAGCAGTTCAGAGGAGGAATT  
 GGCTTCCACGCCCTGAATATACAAGTTGTGATGATGTTGAGATTGAAAGTGAGAGTGAAGTGAAAAAGGA  
 GACATGGATTACAACCTGGTTGGATCATACGTCTTGGCATAGCAGTGAGGCATCCCCAATGTCTTTGCACC  
 CTGTAACCTGGCAACCATCTAAAGATGGAGATCGTTTAATTGGTCGCATTTTATTAATAAGCGTCTAAA  
 AGATGGAAGTGTACCTCGAGATTCAGGAGCAATGCTTGGCTTGAAGGTTGTAGGAGGAAAGATGACTGAA  
 TCAGGTGCGCTTTGTGCATTTTACTAAAGTAAAAAAGGAAGTTTAGCTGATACTGTAGGACATCTTA  
 GACCAGGTGATGAAGTATTAGAATGGAATGGAAGACTACTGCAAGGAGCCACATTTGAGGAAGTGTACAA  
 CATCATTTAGAATCCAAACCTGAACCACAAGTAGAAGTTGTAGTTTCAAGGCCTATTGGAGATATACCG  
 CGAATACCTGATAGCACACATGCACAATGGAGTCCAGTTCTAGCTCCTTTGAATCTCAAAAATGGATC  
 GTCCTTCTATTTCTGTTACCTCTCCCATGAGTCTGGAATGTTGAGGGATGTCCACAGTCTTATCAGG



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ACAACTTTCAATAAACTATGGTTTGACAAGGTTGGTCACCAATTAATAGTTACAATTTTGGGAGCAAAA  
 GATCTCCCTTCCAGGGAAGATGGGAGGCCAAGGAATCCTTATGTTAAATTTACTTTCTCCAGACAGAA  
 GTGATAAAAAACAAGAGAAGAACTAAACAGTAAAGAAAACATTGGAACCCAAATGGAACCAACATTCAT  
 TTATTCTCCAGTCCACCGAAGAGAATTCGGGAACGAATGCTAGAGATTACCTTTGGGATCAAGCTCGT  
 GTTCGAGAGGAAGAAAGTGAATTCCTAGCGAGATTTTAAATTGAATTAGAAACAGCATTATTAGATGATG  
 AGCCACATTGGTACAACTTCAGACGCATGATGCTCTTCATTGCCACTTCCCCACCTTCTCCATATAT  
 GCCACGAAGACAGCTCCATGGAGAGAGCCCAACACGGAGGTTGCAAAGGTCAAAGAGAATAAGTGATAGT  
 GAAGTCTCTGACTATGACTGTGATGATGGAATTGGTGTAGTATCAGATTATCGACATGATGGTCGAGATC  
 TTCAAAGCTCAACATTATCAGTGCCAGAACAAGTAATGTCATCAAACCACTGTTCAACCATCAGGGTCTCC  
 TCATCGAGTAGATGTTATAGGAAGGACTAGATCATGGTCACCCAGTGTCCTCTCCACAAAGTCGGAAT  
 GTGGAACAGGGGCTTCGAGGGACCCGCACTATGACCGGACATTATAATACAATTAGCCGAATGGACAGAC  
 ATCGTGTGATGGATGACCATTATTCTCCAGATAGAGACAGTCATTTTCTACTCTACCTCGCTCCAGATA  
 CAGTCAGACCATTGACCATCATCACAGGGATGGCAGGGATTGTGAAGCAGCAGATAGACAGCCATATCAC  
 AGATCCAGATCAACAGAACACGGCCTCTCCTTGAGCGGACCACCACCGCTCCAGATCCACTGAACGTC  
 CTGATACAAACCTCATGAGGTGATGCCTTCATTAATGACTGGAAGATCTGCCCCCTCTTCACTGCCTT  
 ATCGAGGTCTATCCTCGTACTGGGTCTGTCCAGACAAGCCCATCAAGTACTCCAGTCGACGAGCAAGG  
 GGCCGACAGCTTCCACAGCTTCCACAAAGGGAACGTTGGATAGAAAAGCAGGAGGTAAAAAACTAAGGA  
 GCACTGTCCAAAGAAGTACAGAAACAGGCCTGGCCGTGGAATAGGAACTGGATGACTCGACAGGCAAG  
 CCGAGAGTCTACAGATGGTAGCATGAACAGCTACAGCTCAGAAGGAAATCTGATTTTCCCTGGTGTTCGC  
 TTGGCCTCTGATAGCCAGTTCAGTGATTTCTGGATGGCCTTGGCCCTGCTCAGCTAGTGGGACGCCAGA  
 CTCTGGCAACACCTGCAATGGGTGACATTCAGGTAGGAATGATGGACAAAAAGGGACAGCTGGAGGTAGA  
 AATCATCCGGGCCCGTGGCCTTGTGTAAAACAGGTTCCAAGACACTGCCAGCACCGTATGTAAAAGTG  
 TATCTATTAGATAACGGAGTCTGCATAGCCAAAAAGAAAAACAAAGTGGCAAGAAAAACGCTGGAACCCC  
 TTTACCAGCAGCTATTATCTTTTGAAGAGAGTCCACAAGGAAAAAGTTTTACAGATCATCGTCTGGGGAGA  
 TTATGGCCGATGGATCACAATCTTTTATGGGAGTGGCCAGATACTTTTAGATGAAGTAGAGCTATCC  
 AATATGGTGATCGGATGGTTCAAACCTTTTCCACCTTCTCCCTAGTAGATCCAACCTTGGCCCTCTGA  
 CAAGAAGAGCTTCCCAATCATCTCTGGAAGTTCAACTGGACCTTCTACTCTCGTTCATAG

**5' Read Nucleotide  
Sequence:**

>OriGene 5' read for NM\_014677 unedited  
 NNNNNNNNNNNNGGGGGTTCAAAATTTGTGATACGACTCATATAGGGCGGCCGCGATT  
 CGGCACGAGGGCCGAAAGCTGCACGGTACTGAATCTTCTACGACTGAATTAGAAGAATA  
 ATGACTGTACAATTAAGTATCAACCTCTGTTTCAATTAAGCACAGTTTTTACAGAGCTCAG  
 GAGAAATATGGAAGTATTGGCGTGTGTTTTATTTGATGGTGTGAGCANATAGATGATTT  
 TAAAGACAGGTGGTAGGGAAAAATAAGAGAAGGGGAAAAAAAGAAAGAAATGCAATTTG  
 GAGACATTGCGCCAGTCCCGCAATCTGGTTTAACCAATTTCAAGGGGGTTTTTTTTTC  
 CCCACCCAAATTTCTTACAAAAGGGACTTTTTGGACCAAACTTGAAAATGGATGGGAAA  
 AAAAACCCCTTTTTGGGCCCCAAGATTCCCAATTAATAAACCCCTCCCCGGGAAAAAAA  
 AAAGGAGAATTTTTCCCCGGTTTTCTTTTTTGGTATCCCCGCGGGGCCCAAAATCCC  
 CCCAAAAATTTTTGCCGGGGGGGGGGTTCCCCAAAAAACACCCCTTTTTTTTATAA  
 AAACACTCTTTTTTTTTCTTTTTTTTTGGGGGCCCCCCCCCAGGAAAAAAATTTTT  
 TTTCCCTCCCCAAAAAAATAATTTTTTTTTAAAAAGAAAGGGGGGGGGGGGGGG  
 CGCCCCCATATTTTTATTCCCCCGGCGCCCCGGGAAAAAGAAAAAAAC  
 CCCCCCCCCCCCCCTCCCCAAGAAGAAAAACAAAN

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 3' read for NM_014677 unedited</p> <pre> NTTTGTCTTGGACCGCGGCCGCAATCTANGATCGAGTTTTTTTTTTTTTTTTTGTGCAAG TTGCAGCCCCAAGAAAAATTTAAGTATTCAGCTAATCTGTGCCATGCAAAAAAGTTTC TTTAATTTTCATTACAGTACAGTGTAGCCACAGAATTTTGTTCAGAGTCCAACACATCT TAGCATTAGTAATTGACGTGCCCATGGAGCTACAAAGCTGCCACTCTTCCTGCTGGACT GACTGCTCTGATTCCCGCCAGAGGAGGGCTGATGATTGTTCTGACCACTTCTTTGGTC TCCTGCTTTTCACCTGATGCTTCCTAGGATTACACTCCTCACCTGTAACACCGCTTCATG GCTGTATAGCTCCATTTCTGTGGCATATCAGGGCTTTGGGGTTAGATAAATGAAGAAAAA GGAATGATAAAAAATATAAAGGTGCCATTGAAAAGGGCTTCTGTTGCATGAACTGACTGA TTCTTTGAGATTAATCCATGGCTTCAGATTGGACCAGAACTCGAGTGTCATTGAATTCCA AATCTGATAGTTCTTCACAGCTCTGCTCTTTCACCTGAGGGCTTCTTTAGGGCACAATG TGTGCAACTTCTCTGAGAACACAGGATTGCTTTGTATCCCTAGAAACAGGCTCAGAAGA CACAACATTAAGCATGCAGTGTTACCAGGGTTTGAACCTGTGATTTTTTTTTTTTTTTT TTGTAACGCTGGTTGCTGTGACAACAATTTTTTACAGCTGCTATGAACGAGAGAAAGAA GGTCCAGNTGAACTTTCCAGAGATGATGGGAAGCTCTTCTGTCAAAGGGGCCAGGNTGGA TCTCTAGAGGGAAGTGGNAAAAGNTNGACCATNGCATCACATATTGATAGCTTTAGTC ATCTAAAGTATCTGGCCACTCCATAAAGAAATTGGGATCCTGCGGCCTATT </pre> |
| <b>Restriction Sites:</b>           | NotI-NotI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ACCN:</b>                        | NM_014677                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Insert Size:</b>                 | 4730 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>OTI Disclaimer:</b>              | 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).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <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>                      | <u>NM_014677.2, NP_055492.2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>RefSeq Size:</b>                 | 4451 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>RefSeq ORF:</b>                  | 3492 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Locus ID:</b>                    | 9699                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>UniProt ID:</b>                  | <u>Q9UQ26</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Cytogenetics:</b>                | 8q22.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Domains:</b>                     | C2, PDZ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**Gene Summary:**

The protein encoded by this gene is a presynaptic protein that interacts with RAB3, a protein important for normal neurotransmitter release. The encoded protein can also bind several other synaptic proteins, including UNC-13 homolog B, ELKS/Rab6-interacting/CAST family member 1, and synaptotagmin 1. This protein is involved in synaptic membrane exocytosis. Polymorphisms in this gene have been associated with degenerative lumbar scoliosis.

[provided by RefSeq, Feb 2017]

Transcript Variant: This variant (2) differs in the 5' UTR, and has multiple differences in the presence and absence of exons in the 5' and mid-coding regions, compared to variant 1. The resulting protein (isoform b) is shorter and has a distinct N-terminus, compared to isof