

## Product datasheet for **SC114960**

### ARHGEF10 (NM\_014629) Human Untagged Clone

#### Product data:

|                           |                                                                                                   |
|---------------------------|---------------------------------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                                               |
| Product Name:             | ARHGEF10 (NM_014629) Human Untagged Clone                                                         |
| Tag:                      | Tag Free                                                                                          |
| Symbol:                   | ARHGEF10                                                                                          |
| Synonyms:                 | GEF10; SNCV                                                                                       |
| Mammalian Cell Selection: | None                                                                                              |
| Vector:                   | <u>pCMV6-XL4</u>                                                                                  |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                                                            |
| Fully Sequenced ORF:      | >NCBI ORF sequence for NM_014629, the custom clone sequence may differ by one or more nucleotides |

ATGGACCAGCGAGAGCCCCTGCCTCCCGCTCCTGCAGAAATGAAATGAAATATGATACCAATAATAATG  
AAGAGGAAGAGGGAGAACAGTTCGATTTTGACAGTGGAGATGAAATCCCAGAAGCGGACAGACAGGCCCC  
ATCCGCCCCCTGAGACAGGAGGTGCTGGAGCCAGTGAAGCCCCCTGCACCCACAGGAGGTGAGGATGGAGCT  
GGAGCAGAAACCACCCAGTGGCAGAGCCTACTAAGCTGGTGTCTCCGATGAAAGTCAACCCATATTCTG  
TCATCGACATCACGCCATTCCAGGAGGACCAGCGCCACCCCGTGCCAGCGCTGAGGAGGAGAATGT  
GGGTCTCCATGTGCCCTGCGGTACTTGGTGCCTGTACCCTGCGGTATGCGGTGCCCTCCAACCTGCC  
CTCCTGTGCCCCCTACTCCAGCCCGGTATCATCTGCGCCACGTCCCTGGACGAAGAAGAAACACCAG  
AAGTCACAGAAGATCGCCAGCCCAATTCTCTGAGTTCGAGGAGCCTCCAACAGTGAAGATCAAGTCGG  
TCGAGAGGACAGCGCACTTGCCCGCTGGGCCGACACCCGCGCAACACAGCCTGGATGGAGAATCCAGAG  
GAAGCAATTTACGATGACGTTCCAAGGGAAAACCTCAGACTCTGAACCAGATGAAATGATTATGATGATG  
TTGAGAATGGGGATGAAGGTGGAACAGCTCCTTGAATACGGATGGAGTTCGAGTGAATTTGAAAGTTA  
CGAAGAGCAGAGTGACTCGGAGTGCAAGAATGGGATTCACAGGTCTTCTGCGCAGCAACCACAAAAAG  
CAACTTTCTCATGACCTAACCCGTTTAAAGGAGCACTATGAGAAAAAGATGAGAGATTTGATGGCAAGCA  
CGGTGGGCGTGGTGGAGATTGAGCAGCTCAGGCAGAAGCATGAACTGAAGATGCAGAAGCTCGTGAAGGC  
CGCGAAGGACGGCACCAAGGACGGGCTGGAGAGGACCAGGCGAGCGTGAAGAGGGCCGCTCCTTCATC  
AGGACCAAGTCTCTCATCGCACAGGATCACAGATCTTCTTGGAGGAAGAACAGAATTTGTTCAATTGATG  
TTGACTGCAAGCACCCGGAAGCCATCTTGACCCCGATGCCCGAGGGTTTATCTCAGCAGCAGGTTGTAAG  
AAGATATATACTGGGTTCAAGTGTGCGACAGTGAAGAACTACGTAGATGCTCTTAAGAGGATTTTGGAG  
CAATATGAGAAGCCGCTGTCTGAGATGGAGCCAAAGGTTCTGAGTGAAGGAAGCTGAAGACGGTGTCT  
ACCGAGTCAAAGAGATCCTGCAGTGCCACTCGCTATTTTCAGATCGCGCTGGCCAGCCGCTTTCCGAGTG  
GGACTCCGTGGAATGATAGGCGATGTCTTCTGGCTTCGTTTTCTAAGTCCATGGTGTGGATGCATAC  
AGTGAATATGTGAACAATTTGAGCAGCCGTCAGTCTCAAGAAAACATGTGCCACAAAGCCCGCTT  
TTCTTGAATTTTAAAGCAGGAACAGGAGGCCAGCCCCGATCGAACCACGCTCTACAGCCTGATGATGAA



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GCCCATCCAGAGGTTCCACAGTTCATCTCTGCTCCAGGACATGCTGAAGAACACCTCCAAAGGCCAC  
 CCCGACAGGCTGCCTCTTCAGATGGCCCTGACAGAGCTCGAAACACTAGCAGAGAAGTTAAATGAAAGAA  
 AGAGAGATGCTGATCAACGCTGTGAAGTGAAGCAAATAGCCAAAGCCATAAACGAAAGATACCTGAACAA  
 GCTTCTCAGCAGTGGAAGCCGATACCTCATTGATCAGATGATATGATAGAAACAGTTTACAACGACAGA  
 GGAGAGATTGTTAAAACCAAAGAACGCCGAGTCTTCATGTTAAATGATGTGTTAATGTGTGCCACCGTCA  
 GCTCAGCCCCCTCATGACAGCCGTGTGATGAGCAGCCAGAGGTAAGTGTGAAGTGGAGCGTTCCACT  
 GGGACATGTGGAGCCATCGAGTATGGCAGCAGCGCAGGCACGGGCGAGCACAGCAGGCACCTTGCCGTT  
 CACCCGCGGAGAGCCTGGCCGTGGTTGCTAACGCGAAACCAAACAAAGTTTACATGGGGCCAGGACAAC  
 TGTATCAAGATTTACAAACTTGTGTCATGACTTAAATGTAATTGGCCAAATCACTCAGCTGATAGGAAA  
 CCTTAAAGGAACTATCAGAAGTAAACCAGTCAGTAGCCCATGACTGGACATCAGGTTTACAAAGGCTT  
 ATTTTGAAGAAAGAGATGAAATCAGAGCTGCGGACTGCTGCAGAATTCAGTTACAGCTTCCCGGGAAGC  
 AGGACAAATCTGGGCGACCGACGTTCTTTACAGCTGTGTTCAATACGTTACCCCTGCCATCAAGGAGTC  
 CTGGGTCAACAGCTTACAGATGGCCAAGCTCGCCCTAGAAGAGGAGAACCACATGGGCTGGTTCTGTGTG  
 GAAGACGATGGGAATCACATTAAGGAGAGAAGCATCCTCTCTCGTCGGACACATGCCCGTGATGGTGG  
 CCAAGCAGCAGGAGTTCAAGATTGAATGTGCTGCTTATAACCCTGAACCTTACCTAAATAATGAAAGCCA  
 GCCAGATTCATTTCCACGGCACATGGTTTCTGTGGATCGGAAGTTGCACCCATCAAATGGGTCAGATT  
 GCCATCGTCTCGTTTCAAATTCCTACTCCAAAGTCATTGAGTGTTCACAGTGGAAATCTCGCATCTGT  
 GCATGCTGTACGTTCCCGTCGAGGAGAAGCGCAGAGAGCCTGGGGCACCCCGGACCCCGAGACCCCGGC  
 CGTGAGAGCTTCTGATGTCCCCACGATCTGTGTAGGGACGGAGGAGGGAAGCATTTCATTTATAAAGC  
 AGTCAAGGCTCCAAGAAAGTGAGACTTCAGCACTTTTCTACTCTGAGAAGTCCACAGTCATGAGCCTGG  
 CTTGCACGTCTCAGAGCCTGTACGCTGGCCTGGTCAACGGGGCAGTCGCCAGCTACGCCAGAGCCCCAGA  
 TGGATCCTGGGATTGAGAACCTCAAAAAGTGATCAAGTTAGGCGTCTACCAGTTAGAAGTCTACTCATG  
 ATGGAAGACACGTTGTGGGCGGCTTCCGGAGGTCAAGTCTTCATCATGCTGTGGAGACATGCTGTAG  
 AGGGTCAGCTGGAGGCCACCAGGAGGAAGGCATGGTGATCTCCACATGGCCGTGTCGGCGTCCGGAT  
 CTGGATTGCCTTCACTCAGGTCACGCTCCGCTTTTTTACACGGAAGTCTCAAGCACCTGCAGGAC  
 ATCAACATCGCCACCCCTGTTCAACATGCTGCCAGGGCACCAGCGGCTGTGCGTGACGAGCCTGCTCG  
 TCTGCCACGATTGCTGATGGTCGGCACCGCTGGGAGTCTCGTGGCCCTGCCGCTCCACGTCGCA  
 AGGATTCCCAAAGTGACCGGAAGAGGCATGGTCTCTACCATGCACACAACAGTCTGTCAAATTCATC  
 GTCTGGCCACGGCTCTGCACGAGAAAGACAAGGACAAATCCAGGGACAGCCTGGCTCTGGCCCCGAGC  
 CTCAGGACGAAGACCAGAAGGACGCACTCCGAGTGGAGGAGCTGTTTCTCTGAGCCAGGGTGACCC  
 TGACGCAGCCATCTGGTTGGGAGATTGCTGGGATCGATGACTCAGAAAAGCGACCTGTCTCTCATCT  
 GGGTCCCTGAGCTGTCTACGGCTCCAGCTCTCTAGAGCACAGATCAGAGGACAGCACCATCTATGATC  
 TCCTGAAGGATCCTGTCTCGCTGAGAAGCAAAGCACGCCGGGCCAAGAAAGCCAAGGCCAGCTCGGCGCT  
 GGTGGTCTGTGGAGGGCAGGGCCACCGCCGGGTGCACAGGAAGGCCCGGACGCCACCAGGAAGAGCTG  
 GCGCCGACCGTCATGGTCTGGCAGATCCCTCTGCTGAATATATAA

**5' Read Nucleotide  
Sequence:**

>OriGene 5' read for NM\_014629 unedited  
 ACACCACGGCGTGTAGGGGGTAGAGTTCTAAGACAGTCTGGTGGGAGAGTGCAGACACA  
 CCCGGGGCCGTGTAGGGGGTACAGTTCTAAGACAGTCTGGTGGGAGAGTGCATACACAC  
 ACGGGGCTGTGTGCGGGATAGAGTTCTAAGACAGTCTGGTGGGAGAGTGCAGACACACA  
 CCAGGGCGTGTACGGGGTGGAGTTCTAAGACAGGCTGGAGGAACAGTGGAGACACACAC  
 TGGGGAGCATAGGGGTGCTTTTCTCTGAGTCCCCTAGTACATGGTAGAGGCTGTAGACCC  
 TCCGCTCTTGGGCAGTGGGTAGGCTCTCAGGATGACTCTTGGCTCTTGGGCATGTGGGT  
 GAGCTCTCAGGATGATGCCCAGCCCCAATTTTCAGGCAATTGTGCAAGGACTTGACCCAT  
 TCATCCGCTGAGCTGAGTTGCTGAGACTGCTGGGTGCCCGGGTGGTGATCATTGTCCGTG  
 GCATACAGAACACACTGCAGCTTCTGCACAGTGAGCTCATTTACGCATTTTATGGCTTT  
 GCCAGGCTGCTGTTGACCTGCCAGAAGTTTAAATCAGACATTTGGAGGACCTGTTTTGTA  
 GTCAGTGGAGAAATATTACAAGGATAGGGTAATTTTGAATATCTAAGGATTGCTAGTGA  
 CAAGTTTCTGCTAATCTTGCAATTTACAGTGAAAGCATGTGTTGGCTTTGAATGCTACTT  
 ATGTGCTGAAATGGTATATCTCAGTGCTTAATACTACGGTTNTCTAGGCCAGTTTTG  
 NTACAGTGATGATTGTGGATGCATAAGAATA

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 3' read for NM_014629 unedited</p> <pre> TTAGCTTTGGACCGGCGGCCGAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTACTGCA TTTTAAATAAAAAATACTTTATTGATGAAGTCAGACAGCAGCTAACAGTTTGAGAAGCTT GGGAAGAAATCACTTTCACATGGGGGATATATGCAACCTAGAACATATTGGCTAAGTCA TAAATTAACATTTTTAGTCATCTGTAAAGTGCTGAGACATTTATTTCTGGTGACTGCCT GTGTTAGGATTTTTTCTTGTATCCGTCCAGTAAGTGAACACTGAAATACACGTTTCTG CAGGATGGCGCTCACTAAGTATGCACCTTGACATGATGGTGTGCACTCATTATGCACGTT CTCACGGGGGCTGGCTCTGCAACTGCAGAAATAGAACTGATGCGTTCTGCAGAGGAGGC GTCTGCACAACAGACAGGCTGGCCCGAGGTCACGCCTCTTGGCCTGAGTCCCGCTCAGTG ACAGCAGCCAGCATGGCCTAGCACCAGGAGTCATTCGGAGCGTGCGTGCTAAAGCAGACA CAGCATTCACGTCAACAGGGGCAAGAAGCTGCACGAAGGAACTAAGCAAGACTTCTCTG CCTATCTCTCTAATACTAAAGCACACACTTTTCTCTGTGGATAGTCACTCTATTTATA CGAGAAGGGAGGAAATATTTGGTGTGATGCTTGAGTCCAATGGTGATAGGCACTGAGC ATTTTGGGGTCAAAGCAACATTATTTGTAAAGCTACAGATATACATTGACTGNAACATT NACTGTAAATTTTTTATAGAAAAATGCCATCCAAAATTATACCTTTGTAATATACAGT CCCACCTTTTACCACTTGAAAAACCCACCTCACTCTGAAAGCAATATGCTACCTNACTGG AGGGGTACCTGGCTTTAAATGTTACAATTTACCTTGAATCAAAATTAATAA </pre> |
| <b>Restriction Sites:</b>           | NotI-NotI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ACCN:</b>                        | NM_014629                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Insert Size:</b>                 | 4600 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><a href="#">NM_014629.1</a></u> , <u><a href="#">NP_055444.1</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>RefSeq Size:</b>                 | 5595 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>RefSeq ORF:</b>                  | 5595 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Locus ID:</b>                    | 9639                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>UniProt ID:</b>                  | <u><a href="#">O15013</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cytogenetics:</b>                | 8p23.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Domains:</b>                     | RhoGEF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Protein Families:</b>            | Druggable Genome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

**Gene Summary:**

This gene encodes a Rho guanine nucleotide exchange factor (GEF). Rho GEFs regulate the activity of small Rho GTPases by stimulating the exchange of guanine diphosphate (GDP) for guanine triphosphate (GTP) and may play a role in neural morphogenesis. Mutations in this gene are associated with slowed nerve conduction velocity (SNCV). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2015]  
Transcript Variant: This variant (1) encodes isoform (1).