

Product datasheet for **SC323833**

Ephexin 1 (NGEF) (NM_019850) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ephexin 1 (NGEF) (NM_019850) Human Untagged Clone
Tag:	Tag Free
Symbol:	Ephexin 1
Synonyms:	ARHGEF27; EPHEXIN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_019850.1
 CAGGACGAAGTTTTGGCTGTGGCTCTCTGGGACAGAGTGGAGCGCCTGTGGATTTAGC
 CGGGGACACACCATCCTGCTCGCAGGTGCCTGGACAGGACAGGGGACGAGGGAGGAACAC
 TCTCTGAGGAAGCCCACTCCTATGAGCTCCTCTCTGGCAGCACTCAAACCAAGTGAAGCT
 TGGGAAAGTCATTGACCTCCAGTCGTTCTGCTGAGAAACATCTGGCTCTATTTCCATGGA
 GACCAGGGAATCTGAAGATTTGGAAAAGACCCGGAGGAAATCAGCAAGTGATCAATGGAA
 CACTGATAATGAACCAGCCAAGGTGAAACCTGAGTTACTCCCAGAAAAAGAGGAGACTTC
 TCAAGCTGACCAGGATATCCAAGACAAAGAGCCTCATTGCCACATCCCAATTAAGAGAAA
 TTCCATCTTCAATCGCTCCATAAGACGCAAAAGCAAAGCCAAGGCCAGAGACAACCCCGA
 ACGGAACGCCAGCTGCCTGGCAGATTACAGGACAATGGAAAATCTGTAATGAGCCCT
 GACCTTGAATATCCCCTGGAGCAGAACGCCTCCTTGCAGAACAGCAATGCAGACAGACCC
 AGGAGCCAGGAAATGAGTGAGTCGTCCTCCACCCGGGAAATGGGGCCACGCCCGAGGA
 GTGGCCCGCCCTGGCCGACAGCCCAACACGCTCACCGAGGCCCTGCGGATGATCCACCC
 CATTCCC GCCACTCCTGGAGAAACCTCATTGAACAAATAGGGCTCCTGTATCAGGAATA
 CCGAGATAAATCGACTCTCCAAGAAATCGAAACCAGGAGGCAACAGGATGCAGAAATAGA
 AGACAATACCAATGGGTCCCGGCCAGTGAGGACACCCCGGAGGAGGAAGAAGAAGAGGA
 GGAGGAGGAGGAGCCGGCCAGCCACCAGAGAGGAAGACTTGCCCCAGATCTGCCTGT
 CAGTAACCCCACTCAAGTTCAACCTTGGCAGGATCTTCCCGAGATCCGGAGCAGCGG
 GGTGCTTGAGATCCTACAGCCTGAGGAGATTAAGCTGCAGGAGGCCATGTTGAGCTGGT
 CACTTCCGAGGCTCCTACTACAAGAGTCTGAACCTGCTCGTGTCCCACTTCATGGAGAA
 CGAGCGGATAAGGAAGATCCTGCACCCGTCGAGGCGCACATCCTCTTCCAACGTCCT
 GGACGTGCTGGTGTGAGTGTGACATCGTGTACCGTTATGCGGCTGACCACTTCTGT
 CTACATCACCTACGTGAGCAATCAGACCTACCAGGAGCGGACCTATAAGCAGCTGCTCCA
 GGAGAAGGCAGCTTCCGGGAGCTGATCGCGCAGCTAGAGCTCGACCCCAAGTGCAGGGG
 GCTGCCCTTCTCCTCCTCCTCATCCTGCCTTTCCAGAGGATCACACGCCTCAAGCTGTT
 GGTCCAGAACATCCTGAAGAGGGTGAAGAGAGGTCTGAGCGGGAGTGCAGTCTTGGAA



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TGCTCACAAAGGAGCTGGAAATGGTGGTGAAGGCATGCAACGAGGGCGTCAGGAAAATGAG
 CCGCACGGAACAGATGATCAGCATTGAGAAGAAGATGGAGTTCAAGATCAAGTCGGTGCC
 CATCATCTCCCCTCCCCTGGCTGCTGAAGCAGGGTGAAGTGCAGCAGATGTCAGGCC
 CAAGACCTCCCGGACCCTGAGGACCAAGAAGCTTTCCACGAAATTTACCTTTCTCTGTT
 CAACGACCTGCTGGTGTCTGCCGGCAGATTCCAGGAGACAAGTACCAGGATTTGACTC
 AGCTCCGCGGGGACTGCTGCGTGTGGAGGAGCTGGAGGACCAGGGCCAGACGCTGGCCAA
 CGTGTTTCATCCTGCGGCTGCTGGAGAACGAGATGACCGGGAGGCCACCTACATGCTAAA
 GCGCTCCTCTCAGAGTGAGATGAAGCGTTGGATGACCTCACTGGCCCCAACAGGAGGAC
 CAAGTTTGTTCGTTACATCCCCTGGCTGCTGGACTGCCCCAGGTCCAGTGCCTGACCC
 ATACGTGGCTCAGCAGCCAGACGAGCTGACGCTGGAGCTCGCCGACATCCTCAACATCCT
 GGACAAGACTGACGACGGGTGGATCTTTGGCGAGCGTCTGCACGACCAGGAGAGAGGCTG
 GTTCCCCAGTCCATGACTGAGGAGATCTTGAATCCCAAGATCCGGTCCCAGAACCTCAA
 GGAATGTTTCCGTGTCCACAAGATGGATGACCCTCAGCGCAGCCAGAACAAGGACCGCAG
 GAAGCTGGGCAGCCGGAATCGGCAATGACCCCCACCCAGGGGGCCAGCGGAGCAGGGCC
 TGCATGAGACCCGACAGAAGGTGGGGGGGGGCTCTGGGAAGCACAGGCCAGCACCTC
 CCCAGGTGGCAGGATCTGGCTTGGGGTGGCCGGCCCTCATCCCTGCCACGACGTGAGTG
 CTCATGTGTCTTGGCCCTTGGCTTGCAAACTGGATAAAGGGTGCCTCAAGCCTCTCCTGAT
 GCATTTGTAACAAGAAGGTTTCAGCAGTATTACACCACCTCCCTCATGCCTCCGAGGGG
 GTGGAAGGGGGTGGGCACACTCCAGGGCCCCCATGCCCTGGCCCCAGGGACTGGAAG
 AGGCTCCCAACCCAGAGTGTCCCTGTGGGAGGCAGGCAGAAGGTGACAATTGACACGATT
 TCCTGCACGCGTCTCCTCTACCTTGAAGCAGTTAGAATCTACCAGGCACAGATGAGGC
 CGCCCTTGCTGACGGAGCTTGTGAGCAGCCCTTGGTCTCCGGTCCAGGACTGAGAGC
 CCAGTGCCTCTGCCACCCTTCCCAGGCCTCTGCCAGCCTCTGGCTGCACGGTCAGGC
 CCTGCCCATGGCAGGCCTGCCAGAGCTTGGCTGGGGACCCCTCCCGCCTCTGGCTCCCT
 GATGGGCTGGATGTAACCTGTGTCTTCTAGCCGCTTAAGGAGCCAGGTGTTTTAAGGAA
 TGAATTGGTCACTGCATCTGTATCGATTATGGTTCTGAGAAAAGCAAATACACTTTTG
 GCTGCATTAAGAAGCATCATATATAAAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites:

ECoRI-NOT

ACCN:

NM_019850

OTI Disclaimer:

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).

OTI Annotation:

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_019850.1](#), [NP_062824.1](#)

RefSeq Size: 3177 bp

RefSeq ORF: 2133 bp

Locus ID: 25791

UniProt ID: [Q8N5V2](#)

Cytogenetics: 2q37.1

Protein Pathways: Axon guidance

Gene Summary: Acts as a guanine nucleotide exchange factor (GEF) which differentially activates the GTPases RHOA, RAC1 and CDC42. Plays a role in axon guidance regulating ephrin-induced growth cone collapse and dendritic spine morphogenesis. Upon activation by ephrin through EPHA4, the GEF activity switches toward RHOA resulting in its activation. Activated RHOA promotes cone retraction at the expense of RAC1- and CDC42-stimulated growth cone extension (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.