

Product datasheet for **MC229039**

Eps8 (NM_001271587) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eps8 (NM_001271587) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Eps8
Synonyms:	AW261790
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

Fully Sequenced ORF: >MC229039 representing NM_001271587
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCTCTCTCAGTCTTGCCTTGACAGTTGCTTGGACGAGTTTTACCTCAGCAGTGCAGGAAGAGGCGTGA
 GAGCCGGCATGAATGGTCATATGTCTAACCGCTCCAGTGGGTATGGAGTCTACCTTCTCAACTGAATGG
 TTACGGATCTTACCACCTATTCCCAGATGGACAGAGAACACAGCTCAAGAACAAGTGCAAAGGCCCTT
 TATGAACAAAGGAAGAACTATGCCCGAGACAGTGTGACAGTGTGTCGGACGTGTCCAGTACCGCGTGG
 AACACTTGACCACCTTCGTGCTGGATCGGAAAGATGCAATGATCACTGTCGAGGACGGAATAAGAAAGCT
 GAAGTTGCTGGATGCCAAGGGCAAAGTGTGGACTCAAGATATGATTCTCCAAGTGGATGACCGAGCTGTG
 AGCCTGATTGACTTAGAGTCAAAGAATGAATTGGAGAATTTTCTCTAACACAATCTCGCATTGTCAAG
 CAGTGGTACATGCATGCAGCTATGACTCCATTCTCGCTTGGTATGCAAAGAGCCAACGCAGAGCAAGCC
 AGACCTTCACCTTTCCAGTGTGATGAGGTTAAGGCAAACCTAATTAGTGAAGATATCGAAAGTGAATC
 AGTGACAGTAAAGGTGGGAAACAGAAGAGGCGGCCGAGGCCCTGAGGATGATTGCCAAAGCAGATCCTG
 GCATCCCTCCTCCTCCAGAGCTCCTGCCCTGTGCCACCAGGGACTGTACACAGGTGGACGTTAGGAG
 TCGCGTAGCAGCCTGGTCTGCCTGGGACGTGACCAGGGCGACTTCGAGAAGCCCCGGCAGTACCACGAG
 CAAGAAGAGACGCCCGAGATGATGGCAGCCGGATCGACAGGGATGTGCAAACTCTAAACCATATTTTGG
 ATGACATTGAATTTTTATCACCAAACTCCAAAAGCCGCGGAAGCGTTTTCTGAGCTTTCTAAAAGGAA
 GAAAAGTAAGAAAAGTAAAAGGAAAGGACCTGGAGAGGGCGTTTTAACTGAGGGCAAACCCGCCACCT
 CCTGATGAATTTGTTGACTGTTCCAGAAGTTAAACATGGATTCAACCTTCTGGCCAAGTTGAAGTCCC
 ATATCCAGAACCAGTCTTCAGATCTGGTTCATTTTTGTTTACTCCACTAAATATGGTGGTCCAGGC
 AACAGGTGGCCCCGAACCTGGCCAGTTCGGTACTCAGCCACTGTTGACAAAAGACACAGTTGATTTCTTA
 AACTACACAGCCACTGCGGAGGAACGGAAGCTGTGGATGTCAGTGGGAGATAGTTGGGTGAAAGTGAAG
 CAGAGTGGCCGAAAGAACAGTTCATCCCACCTTACGTCCCAGGTTCCGCAACGGCTGGGAGCCCCGAT
 GCTGAACCTCATGGGCGCGCCACAGAGCAAGACATGTATCAACTGGCCGAGTCCGTGGCCAACGCAGAA
 CACCAGCGCAAACAGGACAGCAAGAGGCTGTCCACAGAGCATTCCAATGTGTCCGACTATCTCCAGCCG
 ACGGATATGCGTACAGTAGCAGCATGTACCACAGAGGACCACATGCAGACCACGGGGAGGCTGCCATGCC
 TTTCAAGTCAACTCCTAATCACCAAGTAGATAGGAATTATGACGCAGTCAAAACACAACCCAAGAAATAC
 GCCAAATCCAAGTACGACTTTGTGGCGAGGAACAGCAGCGAGCTCTCGGTTATGAAAGATGATGTCTTAG
 AGATACTCGACGATCGAAGGCAGTGGTGGAAAGTCCGGAATGCCAGTGGAGACTCTGGGTTGTGCCAAA
 TAACATTTCTGGATATCATGAGAACTCCGGAATCTGGAGTGGGGCGCGCTGACCCCCATACACATAACC
 ATACAGAAACAAAGGACGGAATACGGCCTGAGATCAGCTGACACTCCTTCTGCCCATCACCCCCTCAA
 CGCCAGCACCCGTTCCGGTCCCCCTTCCACCTTGTACCAGCACCCGTTTCTGTGCCAAAGTCCCAGC
 CAATGTCAACCCGCAACAGCAGCTCCAGTGCAGTGGGGCAGCATTGTGCGGACAGCCAGAGATAC
 AAACAACCTCCAGTGGACCGAAGGAAGTCCCAGATGGAAGAGGTTTCAGGATGAGCTTCCAGAGGCTGA
 CCATCGGGCGCAGTGTGCACAGAGGAAGTCCACGTGCCACGGCAGAACGTTCCAGTATCAATATCAC
 TTATGACTCCTCACCCGAAGAAGTAAAGACTTGGCTGCAGTCAAAGGGATTCAACCCCGTACTGTCAAT
 AGCCTCGGGGTGTTGAACGGAGCAACTCTTTCTCTCAACAAAGACGAACTGAGGTCTGTCTGCCCGG
 AAGGTGCCAGAGTCTTTAACAAATCACTGTTCAGAAAGCTGCTTTGGAGGACAGTAATGGAAGCTCCGA
 GTTACAAGAGATCATGCGGAGACGGCAGGAGAAGATCAGCGCCGCTGCGAGCGACTCGGGAGTGGAGTCT
 TTCGATGAAGGGAGCAGCCATGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001271587
Insert Size: 2544 bp

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:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none"> 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:	<u>NM_001271587.1, NP_001258516.1</u>
RefSeq Size:	4561 bp
RefSeq ORF:	2544 bp
Locus ID:	13860
UniProt ID:	<u>Q08509</u>
Cytogenetics:	6 66.78 cM

Gene Summary:

Signaling adapter that controls various cellular protrusions by regulating actin cytoskeleton dynamics and architecture. Depending on its association with other signal transducers, can regulate different processes. Together with SOS1 and ABI1, forms a trimeric complex that participates in transduction of signals from Ras to Rac by activating the Rac-specific guanine nucleotide exchange factor (GEF) activity. Acts as a direct regulator of actin dynamics by binding actin filaments and has both barbed-end actin filament capping and actin bundling activities depending on the context. Displays barbed-end actin capping activity when associated with ABI1, thereby regulating actin-based motility process: capping activity is auto-inhibited and inhibition is relieved upon ABI1 interaction. Also shows actin bundling activity when associated with BAIAP2, enhancing BAIAP2-dependent membrane extensions and promoting filopodial protrusions. Involved in the regulation of processes such as axonal filopodia growth, stereocilia length, dendritic cell migration and cancer cell migration and invasion. Acts as a regulator of axonal filopodia formation in neurons: in the absence of neurotrophic factors, negatively regulates axonal filopodia formation via actin-capping activity. In contrast, it is phosphorylated in the presence of BDNF leading to inhibition of its actin-capping activity and stimulation of filopodia formation. Component of a complex with WHRN and MYO15A that localizes at stereocilia tips and is required for elongation of the stereocilia actin core. Indirectly involved in cell cycle progression; its degradation following ubiquitination being required during G2 phase to promote cell shape changes.

[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (4) contains a distinct 5' UTR and initiates translation at an alternate start codon, compared to variant 1. The resulting isoform (2) has a distinct N-terminus and is longer than isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.