

Product datasheet for **MR231211**

Eps8 (NM_001271588) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eps8 (NM_001271588) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Eps8
Synonyms:	AW261790
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>MR231211 representing NM_001271588
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATGGTCATATGTCTAACCGCTCCAGTGGGTATGGAGTCTACCCTTCTCAACTGAATGGTTACGGAT
 CTTCAACACCCTATTCCAGATGGACAGAGAACACAGCTCAAGAACAAGTGCAAAGGCCCTTTATGAACA
 AAGGAAGAACTATGCCCGAGACAGTGTGACAGTGTGTCGGACGTGTCCAGTACCGCGTGAACACTTG
 ACCACCTTCGTGCTGGATCGGAAAGATGCAATGATCACTGTGAGGACGGAATAAGAAAGCTGAAGTTGC
 TGGATGCCAAGGGCAAAGTGTGGACTCAAGATATGATTCTCCAAGTGGATGACCGAGCTGTGAGCCTGAT
 TGACTTAGAGTCAAAGAATGAATTGGAGAATTTCTCTAAACACAATCTCGATTGTCAAGCAGTGGTA
 CATGCATGCAGCTATGACTCCATTCTCGCCTTGGTATGCAAAGAGCCAACGCAGAGCAAGCCAGACCTTC
 ACCTTTTCCAGTGTGATGAGGTTAAGGCAAACCTAATTAGTGAAGATATCGAAAGTGAATCAGTGACAG
 TAAAGGTGGGAAACAGAAGAGGGCGCCGAGGCCCTGAGGATGATTGCCAAAGCAGATCCTGGCATCCCT
 CCTCTCCAGAGCTCCTGCCCTGTGCCACCAGGGACTGTCACACAGGTGGACGTTAGGAGTCCGGTAG
 CAGCCTGGTCTGCCTGGGACGCTGACCAGGGCGACTTCGAGAAGCCCCGGCAGTACCACGAGCAAGAAGA
 GACGCCGAGATGATGGCAGCCGGATCGACAGGGATGTGCAAATCTTAAACCATATTTTGGATGACATT
 GAATTTTTTATCACCAAACCTCAAAAAGCCGCCGAAGCGTTTTCTGAGCTTTCTAAAAGGAAGAAAAGTA
 AGAAAAGTAAAAGGAAAGGACCTGGAGAGGGCGTTTTAACACTGAGGGCAAACCCACCTCCTGATGA
 ATTTGTTGACTGTTTCCAGAAGTTAAACATGGATTCAACCTTCTGGCCAAGTTGAAGTCCCATATCCAG
 AACCCGAGTGTTCAGATCTGGTTCATTTTTTGTACTCCACTAAATATGGTGGTCCAGGCAACAGGTG
 GCCCGAAGTGGCCAGTTCGGTACTCAGCCCACTGTTGACAAAAGACACAGTTGATTTCTTAAACTACAC
 AGCCACTGCGGAGGAACGGAAGCTGTGGATGTCACTGGGAGATAGTTGGGTGAAAGTGAAGCAGAGTGG
 CCGAAAGAACAGTTCATCCACCTTACGTCCCGAGTTCCGCAACGGCTGGGAGCCCCGATGCTGAACT
 TCATGGGCGGCCACAGAGCAAGACATGTATCAACTGGCCGAGTCCGTGGCCAACGCAGAACACCAGCG
 CAAACAGGACAGCAAGAGGCTGTCCACAGAGCATTCCAATGTGTCCGACTATCCTCCAGCCGACGGATAT
 GCGTACAGTAGCAGCATGTACCACAGAGGACCACATGCAGACCACGGGGAGGCTGCCATGCCTTTCAAGT
 CAACTCCTAATCACCAAGTAGATAGGAATTATGACGCAGTCAAAACACAACCCAAGAAATACGCCAAATC
 CAAGTACGACTTTGTGGCGAGGAACAGCAGCGAGCTCTCGGTTATGAAAGATGATGTCTTAGAGATACTC
 GACGATCGAAGGCAGTGGTGGAAAGTCCGGAATGCCAGTGGAGACTCTGGGTTTGTGCCAAATAACATTC
 TGGATATCATGAGAACTCCGGAATCTGGAGTGGGGCGCGCTGACCCCCATACACACATACCATACAGAA
 ACAAAGGACGGAATACGGCCTGAGATCAGCTGACACTCCTTCTGCCCCATCACCCCTCCACGCCAGCA
 CCCGTTCCGGTCCCCCTCCACCTTCTGTACCAGCACCCGTTTCTGTGCCCAAGTCCCAGCCAATGTCA
 CCCGCCAGAACAGCAGCTCCAGTACAGTGGGGCAGCATTGTGCGGGACAGCCAGAGATACAAACAACT
 CCCAGTGGACCGAAGGAAGTCCCAGATGGAAGAGGTTCCAGGATGAGCTCTCCAGAGGCTGACCATCGGG
 CGCAGTGTGCACAGAGGAAGTCCACGTGCCACGGCAGAACGTTCCAGTATCAATATCACTTATGACT
 CCTCACCGAAGAAGTAAAGACTTGGCTGCAGTCAAAGGGATTCAACCCCGTACTGTCAATAGCCTCGG
 GGTGTTGAACGGAGCACAACTCTTTTCTCAACAAAGACGAACAGGCTGTCTGCCCGGAAGTGCC
 AGAGTCTTTAACCAATCACTGTTTCAAGAAAGCTGCTTTGGAGGACAGTAATGGAAGCTCCGAGTTACAAG
 AGATCATGCGGAGACGGCAGGAGAAGATCAGCGCCGCTGCGAGGACTCGGGAGTGGAGTCTTTCGATGA
 AGGGAGCAGCCAC

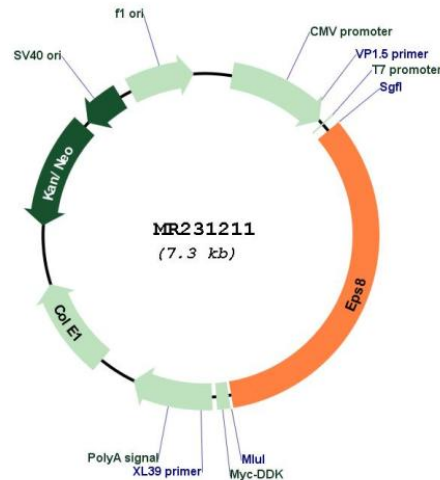
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231211 representing NM_001271588
Red=Cloning site Green=Tags(s)

MNGHMSNRSSGYGVYPSQLNGYGSSPPYSQMDREHSSRTSAKALYEQRKNYARDSVSSVSDVSQYRVEHL
TTFVLDKRDAMITVEDGIRKLLKLLDAKGKVTQDMILQVDDRAVSLIDLESKNELENFPLNTISHCQAVV
HACSYDSILALVCKEPTQSKPDLHLFQCDEVKANLISEDIESAISDSKGGKQKRRPEALRMIKADPGIP
PPPRAPAPVPPGTVTQVDVRSRVAAWSAWAADQGDFFKPRQYHEQEETPEMMAARIDRDVQILNHILDDI
EFFITKLQKAAEAFSELSKRKSKKSKRKGPGEGVLTLRKPPPPDEFVDCFQKFKHGFNLLAKLKSHIQ
NPSASDLVHFLFTPLNMVVQATGGPELASSVLSPLLTKDVTDFLNYTATAEERKLWMSLGDSWVKVRAEW
PKEQFIPPYVPRFRNGWEPPMLNFMGAPTEQDMYQLAESVANAHEHQRKQDSKRLSTEHSNVSDYPPADGY
AYSSSMYHRGPHADHGEAAMPFKSTPNHQVDRNYDAVKTQPKKYAKSKYDFVARNSELVSMKDDVLEIL
DDRRQWWKVRNASGDSGFVNNILDIMRTPESGVGRADPPYTHTIQKQRTEYGLRSADTPSAPSPPTPA
PVPVPLPPSVPAPVSVKVPANVTRQNSSSDSGGSIVRDSQRYKQLPVDRRKSQMEEVQDELFRQLTIG
RSAAQRKFHVPRQNVPVINITYDSSPEEVKTLQSKGFNPVTVNSLGVLNGAQLFSLNKDELRSVCPEGA
RVFNQITVQKAALEDNNGSSELQEIMRRRQEKISAAASDSGVESFDEGSSH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Plasmid Map:


ACCN: NM_001271588

ORF Size: 2463 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_001271588.1](#), [NP_001258517.1](#)

RefSeq Size: 4492 bp

RefSeq ORF: 2466 bp

Locus ID: 13860

UniProt ID: [Q08509](#)

Cytogenetics: 6 66.78 cM

MW: 92.2 kDa

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]