

Product datasheet for **MR209467**

SPIRE2 (BC026502) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPIRE2 (BC026502) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SPIRE2
Synonyms:	Spir-2, Spir2, MGC31610
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR209467 representing BC026502
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGTGCAGTCACTGGGCTTTGCCATTTACCGTGCCTGGACTGGGGTTAGATGAGAACGAGGAGAGAG
 AGCTCAGCCCGCAGCTGGAAAGGCTCATCGACCTCATGGCCAACAGCGACTGCGAAGACAGCAGCTGCGG
 GGCAGCGGATGAGGGCTACGTGGGTCCAGAAGAGGAGGAGGAGGCTGAGGGCGGCCCCGAGCTGTGCGC
 ACCTTTGCCAGGCTATGCGGCTGTGTGCTTTGCGCCTGACCGACCCCCACGGCGCAGGCCACTACC
 AGGCAGTGTGCCGAGCTCTTTTGTGGAGACACTGGAGCTTCGTGCCTTCTGGCCCGGGTGGGGAGGC
 CAAAGAGATGCTGAAGAACTGGGGGAGGAGGAGCCACGGGAGAAGCCACTGGCCGAGCTCGACCACCTG
 GGACACACAGACTGGGCCGGCTGTGGTCCAGCTCATGCGGGAGCTCCGTACGGGGTAAAGCTGAAGA
 AGGTGCAGGAGAAGGAGTTCAACCCACTGCCACCGAGTCCAGCTCACCCCTTCGAGATGCTGATGCA
 GGATATCCGTGCCAGAACTATAAGCTGCGCAAGGTCATGGTCGATGGGGACATCCCTCCAGGGTGAAG
 AAGGACGCACATGAATTCCTGGACTTCATTGTTCTCGGCCCTCCACTGAAGCAGGTCTCAGAGAGAC
 AACTTCGCCCTGTACCACAGAAGCAAAGAACAACCTGCACGAGAAGATCCTGGAGGAAATCAAGCAGGAGCG
 GAGGCTTCGTCCAGTCGGGGCCAGCACTTGGGAGGCCGTGGGTTTGGTCCCTGCCCTGCATCCTCAAT
 GCCTGTCTGGGGACATCAAGTCCACTTCTGCATCAACCTGTCTGTACCGATACTGGGAGCGGGAGTC
 AGCGCCCACGGCCCCGGTCTGCTCAAAGCCCCACCCTTGACAGATGGAAGAAATGAACACGTCTGA
 GGAAGAAGAGTCCCCATGTGGGGAGGTGGCACTGAAGCGGGACCCTCTTTTCGGAACACGACCTGGCC
 CAGCTTCGGAGCGAGATGGCATCTGGCCTTCAGTCAGCCGCTCAGCCCCAGGAGGACGGAGCCACCTC
 GGCCAGAGCAGGTAGCATGCACTCTGGAGGCCAGCAGCCAGGAGGTTTCTGTCTGTGAGCGG
 CCAGTCCCAGCCTCTCCCAGCTCTGCCTTGCCAGTAGCTTGAGCTCAGTGGATGGACCTGAGGCGGCT
 TACCAGATACCAGACACTGTGGCTGGAGTTCAGCCACCCTGTGGAGAGCCTGGCTCTGACTGTGGAAG
 AGGTGGTGGAGTGCAGAGGCTGGTGAAGCGGAGATGGAGAGGTTTCTGCAGGACAAGGAGCTCTT
 CAGCAGCTGAAGAGGGGAAGATTTGCTGTTGCTGCCGAGCCAAGTTTCCCCTGTTTTCTGGCCACCC
 ACCTGTCTCTTCTGCAAGAGAGCTGTGTCACTTCTGTAGCGTAAAGATGAAGATGCCTTCAAGAAGT
 ATGGACACATCCCTGTCTACACACTTGGCTTTGAGAGTCTTCAAGGGTGCCAACTACCAAAGCCACGCC
 AACACTGAGGAGAGATGCCTTCCAATCCCTGCAGGACCAAAGTGGCGGAGCGTGGAGGAGGATCCCC
 CACATCTATGCCACGGCTGTGTCTAAAGGATGTCTGCAGTACTGCACCAGCTTTGTGGCTGATGTCG
 TGTGCTCCAGCCCAAGAGCGTGGATGTCTCAATGCCACTCCACGACGAAGCCGTGAGCCAGTCCCT
 CTATATCCCCAACACCAGGACTCTCAACTTCAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTAA

Protein Sequence:

>MR209467 representing BC026502
 Red=Cloning site Green=Tags(s)

MVQSLGFAIYRALDWGLDENEERELSPQLERLIDLMANSDCEDSSCGAADEGYVGPPEEEEEAEAGPRAVR
 TFAQAMRLCALRLTDPHGAQAHYQAVCRALFVETLELRAFLARVREAKEMLKKLGEEEPREKPLAELDHL
 GHTDWARLWVQLMREL RHGVLKVKVQEKEFNPLPTEFQLTPFEMLMQDIRARNYKLRKVMVDGDIIPRVK
 KDAHELILDFIRSRPPLKQVSRQLRPVPQKQRTLHEKILEEIKQERRLRPVGAQHLGGRGFGSLPCILN
 ACSGDIKSTSCINLSVTDGTGSGSRPRPRVLLKAPTLAEMEEMNTSEEESSPCGEVALKRDRSFSEHDLA
 QLRSEMASGLQSAAPPGTEPPRARAGSMHSWRPSSRDQGFCPVSGSQPLPSSALPSSLSSVDGPEAA
 SPDTRHLWLEFSHPVESLALTVEEVVDVRRVLVKAEMERFLQDKELFSSLKRGKICCCRAKFLFVSWPP
 TCLFCKRAVCTSCSVKMKMPSKKYGHIPVYTLGFESLQRVPTTKATPLRRDAFQSLQGPKWRSEVEEFP
 HIYAHGCVLKDVCSDCTSFVADVVCSSRKSVDVNLNATPRRSRQTQSLYIPNTRTLNFQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: BC026502

ORF Size: 1854 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: [BC026502.1](#)

RefSeq Size: 2175 bp

RefSeq ORF: 1856 bp

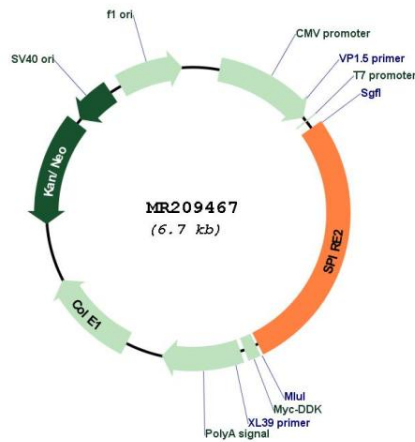
Locus ID: 234857

Cytogenetics: 8 E1

MW: 69.6 kDa

Gene Summary: Acts as an actin nucleation factor, remains associated with the slow-growing pointed end of the new filament (PubMed:21620703, PubMed:21983562). Involved in intracellular vesicle transport along actin fibers, providing a novel link between actin cytoskeleton dynamics and intracellular transport (PubMed:21983562). Required for asymmetric spindle positioning and asymmetric cell division during oocyte meiosis (PubMed:21620703). Required for normal formation of the cleavage furrow and for polar body extrusion during female germ cell meiosis (PubMed:21620703). Also acts in the nucleus: together with SPIRE1 and SPIRE2, promotes assembly of nuclear actin filaments in response to DNA damage in order to facilitate movement of chromatin and repair factors after DNA damage (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR209467