

## Product datasheet for MR206320

### Sag (NM\_009118) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sag (NM_009118) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sag
Synonyms:	A930001K18Rik; Arr1; arrestin; Irbp
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206320 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAGCCTGCGGAAGACCAATAATCCCACGTCATCTTCAAGAAGGTCTCTCGGACAAGTCGGTGA  
CCATCTACCTGGGAAGAGAGACTATGTAGACCACGTACGCCAAGTAGAGCCTGTAGATGGTGTGTGCT  
GGTGGACCCTGAGCTTGTGAAGGGGAAGAAGGTGTATGTCACCCTGACCTGCGCCTCCGCTATGGCCAG  
GAGGACATTGATGTGATGGCCTGACCTCCCGCAGGGACCTGTATTTTCTCGGGTCCAGGTATACCCCTC  
CTGTTGGGGCCATGAGTGTCTCACCAACTCCAAGAGAGCCTGCTCAAGAACTGGGAGACAACACGTA  
CCCTTTCTGCTCACGTTTCTGACTACCTACCCTGTTTCAGTGATGTTGCAGCCAGCTCCCAGGATGTA  
GGCAAGAGCTGTGGGTTGACTTTGAGGTTAAAGCATTTCCTCAGACATCACAGATCCTGAGGAGGACA  
AGATCCCCAAGAAGAGCTCTGTGCGGTTACTGATCCGGAAGTGCAGCATGCCCCACCTGAGATGGGTCC  
CCAGCCCAGTGCTGAAGCCTCCTGGCAGTTCCTCATGTCTGACAAGCCCCTGAACCTCTCAGTCTCCCTC  
AGCAAAGAGATATATTTCCATGGGGAGCCCATCCCGTGACTGTGACCCGTGACCAACAACACCGACAAGG  
TTGTGAAGAAGATTAAGTATCAGTGGAACAGATAGCCAATGTGGTCTCTACTCAAGTGACTATTACGT  
CAAGCCTGTAGCCTCGGAGGAAACACAAGAAAAAGTGCAGCCAACAGCACTTTGACCAAGACACTGGTG  
CTGGTCCCCTACTGGCTAACAAACAGAGAAAGAAGAGGCATCGCGCTGGATGGGAAGATCAAGCATGAG  
ACAAAACTGGCCTCCAGCACCATCATCAAGGAGGGCATCGACCGGACCGTCATGGGGATCCTGGTGTC  
ATACCATATCAAGGTGAAGCTCACGGTGTGCGGCTTTCTAGGAGAGCTCACATCCAGTGAAGTGGTACC  
GAGGTGCCGTTCCGCTCATGCACCCGACGCTGAGGATCCAGCAAAAAGAAAGTTCAGGATGAAAATT  
TGGTTTTGAAGAGTTTCTCGCCAAAATCTGAAAGATACTGGAGAGAACCAGAAAGGAAGAAAGATGA  
GGATGCTGGCCAGGATGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR206320 protein sequence  
Red=Cloning site Green=Tags(s)

MAACGKTNKSHVIFKKVSRDKSVTIYLGKRQYVDHVSQVEPVDGVVLDPELVKGGKVVYVLTLCAFRYGQ  
 EDIDVMGLTFRRLDYFSRVQVYPPVGAMSVLTQLQESLLKKGNDNTYFLLTFPDYLPSCSVMLQPAPQDV  
 GKSCGVDFEVKAFASDITDPEEDKIPKSSVRLLRKRVQHAPPENGPQPSAEASWQFFMSDKPLNLSVSL  
 SKEIYFHGEPIPVTVTVTNNNDKVVKKIKVSVQEIANNVLYSSDYVVKPVASEETQEKVQPNSTLTKTLV  
 LVPLLANNRERRGIALDGKIKHEDTNLASSTIIKEGIDRTVMGILVSYHIKVKLTVSGFLGELTSSEVAT  
 EVPFRLMHPQPEDPAKESVQDENLVFEFFARQNLKDTGENPEGKKDEDAGQDE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_009118

**ORF Size:** 1212 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\\_009118.1](#), [NM\\_009118.2](#), [NP\\_033144.1](#)

**RefSeq Size:** 1718 bp

**RefSeq ORF:** 1212 bp

**Locus ID:** 20215

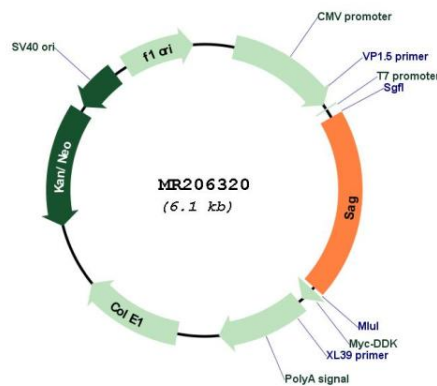
**UniProt ID:** [P20443](#)

**Cytogenetics:** 1 44.44 cM

**MW:** 44.9 kDa

**Gene Summary:** Binds to photoactivated, phosphorylated RHO and terminates RHO signaling via G-proteins by competing with G-proteins for the same binding site on RHO (PubMed:9333241, PubMed:16421323). May play a role in preventing light-dependent degeneration of retinal photoreceptor cells (PubMed:16421323).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR206320