

Product datasheet for RC220057

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

Retinal S antigen (SAG) (NM 000541) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Retinal S antigen (SAG) (NM_000541) Human Tagged ORF Clone

Tag: Myc-DDK

Symbol: Retinal S antigen

Synonyms: RP47; S-AG **Mammalian Cell**

Selection:

Neomycin

pCMV6-Entry (PS100001) Vector: E. coli Selection: Kanamycin (25 ug/mL)

ORF Nucleotide >RC220057 representing NM_000541

Red=Cloning site Blue=ORF Green=Tags(s) Sequence:

> TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC

> AATCGGTGACCATCTACCTGGGGAACAGAGACTACATAGACCATGTCAGCCAAGTCCAGCCTGTGGATGG TATGGCCAAGAGGACATTGACGTGATCGGCTTGACCTTCCGCAGGGACCTGTACTTCTCCCGGGTCCAGG TGTATCCTCCTGTGGGGGCCGCGAGCACCCCCACAAAACTGCAAGAGAGCCTGCTTAAAAAGCTGGGGAG AAGAGGACAAAATCCCCAAGAAGAGCTCCGTGCGATTACTGATCCGCAAAGTACAGCATGCCCCACTTGA GATGGGTCCCCAGCCCCGAGCTGAGGCGGCCTGGCAGTTCTTCATGTCTGACAAGCCCCTGCACCTTGCG GTCTCTCAACAAGAGATCTATTTCCATGGGGAGCCCATCCCTGTGACCGTGACTGTCACCAATAACA CAGAGAAGACCGTGAAGAAGATTAAAGCATTCGTGGAACAGGTGGCCAATGTGGTTCTCTACTCGAGTGA TTATTACGTCAAGCCCGTGGCTATGGAGGAAGCGCAAGAAAAAGTGCCACCAAACAGCACTTTGACCAAG ACGCTGACGCTGCCCTTGCTGACTAACAATCGAGAAAGGAGAGGCATTGCCCTGGATGGGAAAATCA AGCACGAGGACACAAACCTTGCCTCCAGCACCATCATTAAGGAGGGCATAGACCGGACCGTCCTGGGAAT CCTGGTGTCTTACCAGATCAAGGTGAAGCTCACAGTGTCAGGCTTTCTGGGAGAGCTCACCTCCAGTGAA GTCGCCACTGAGGTCCCATTCCGCCTCATGCACCCTCAGCCTGAGGACCCAGCTAAGGAAAGTTATCAGG ATGCAAATTTAGTTTTTGAGGAGTTTGCTCGCCATAATCTGAAAGATGCAGGAGAAGCTGAGGAGGAGGAAA GAGAGACAAGAATGACGTTGATGAG

> **ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA





Protein Sequence: >RC220057 representing NM_000541

Red=Cloning site Green=Tags(s)

MAASGKTSKSEPNHVIFKKISRDKSVTIYLGNRDYIDHVSQVQPVDGVVLVDPDLVKGKKVYVTLTCAFR YGQEDIDVIGLTFRRDLYFSRVQVYPPVGAASTPTKLQESLLKKLGSNTYPFLLTFPDYLPCSVMLQPAP QDSGKSCGVDFEVKAFATDSTDAEEDKIPKKSSVRLLIRKVQHAPLEMGPQPRAEAAWQFFMSDKPLHLA VSLNKEIYFHGEPIPVTVTVTNNTEKTVKKIKAFVEQVANVVLYSSDYYVKPVAMEEAQEKVPPNSTLTK TLTLLPLLTNNRERRGIALDGKIKHEDTNLASSTIIKEGIDRTVLGILVSYQIKVKLTVSGFLGELTSSE VATEVPFRLMHPQPEDPAKESYQDANLVFEEFARHNLKDAGEAEEGKRDKNDVDE

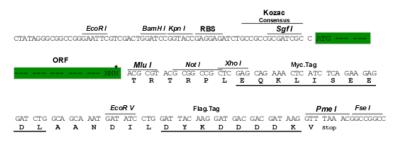
TRTRPLEQKLISEEDLAANDILDYKDDDDK**V**

Chromatograms: https://cdn.origene.com/chromatograms/mg3115 d01.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF

ACCN: NM_000541

ORF Size: 1215 bp

OTI Disclaimer:

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at customer.com or by calling 301.340.3188 option 3 for pricing and delivery.

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. <u>More info</u>



Retinal S antigen (SAG) (NM_000541) Human Tagged ORF Clone - RC220057

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with

0.22um filter is required.

RefSeg: NM 000541.5

 RefSeq Size:
 1564 bp

 RefSeq ORF:
 1218 bp

 Locus ID:
 6295

 UniProt ID:
 P10523

Cytogenetics: 2q37.1

Protein Families: Druggable Genome

MW: 44.9 kDa

Gene Summary: Members of arrestin/beta-arrestin protein family are thought to participate in agonist-

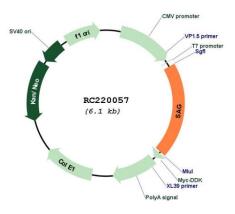
mediated desensitization of G-protein-coupled receptors and cause specific dampening of cellular responses to stimuli such as hormones, neurotransmitters, or sensory signals. S-arrestin, also known as S-antigen, is a major soluble photoreceptor protein that is involved in desensitization of the photoactivated transduction cascade. It is expressed in the retina and the pineal gland and inhibits coupling of rhodopsin to transducin in vitro. Additionally, S-arrestin is highly antigenic, and is capable of inducing experimental autoimmune

uveoretinitis. Mutations in this gene have been associated with Oguchi disease, a rare

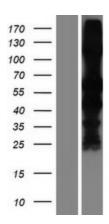
autosomal recessive form of night blindness. [provided by RefSeq, Jul 2008]



Product images:

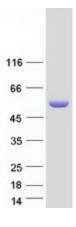


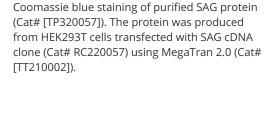
Circular map for RC220057

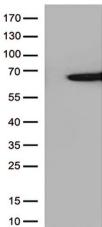


Western blot validation of overexpression lysate (Cat# [LY424652]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220057 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).









HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SAG (Cat# RC220057, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SAG (Cat# [TA812590])(1:500). Positive lysates [LY424652] (100ug) and [LC424652] (20ug) can be purchased separately from OriGene.