

Visual Arrestin (A-3): sc-271466

BACKGROUND

Members of the Arrestin/ β -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. Visual Arrestin, also known as Arrestin, retinal S-antigen or S-Arrestin, is a major soluble photoreceptor protein that regulates light-dependent signal transduction through G protein-coupled receptor (rhodopsin) activation. Visual Arrestin is expressed in retinal photoreceptor cells and the pineal gland. Visual Arrestin is the major pathogenic autoantigen in inflammatory eye disease, such as uveoretinitis and Oguchi disease, a rare autosomal recessive form of night blindness.

CHROMOSOMAL LOCATION

Genetic locus: SAG (human) mapping to 2q37.1; Sag (mouse) mapping to 1 D.

SOURCE

Visual Arrestin (A-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 339-371 near the C-terminus of Visual Arrestin of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271466 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Visual Arrestin (A-3) is recommended for detection of Visual Arrestin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Visual Arrestin (A-3) is also recommended for detection of Visual Arrestin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Visual Arrestin siRNA (h): sc-45467, Visual Arrestin siRNA (m): sc-45468, Visual Arrestin shRNA Plasmid (h): sc-45467-SH, Visual Arrestin shRNA Plasmid (m): sc-45468-SH, Visual Arrestin shRNA (h) Lentiviral Particles: sc-45467-V and Visual Arrestin shRNA (m) Lentiviral Particles: sc-45468-V.

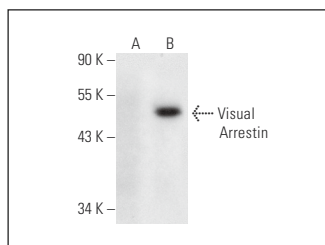
Molecular Weight of Visual Arrestin: 48 kDa.

Positive Controls: Visual Arrestin (m): 293T Lysate: sc-124570, RPE-J cell lysate: sc-24771 or Y79 cell lysate: sc-2240.

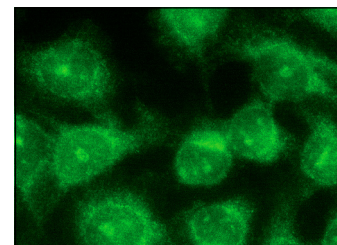
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Visual Arrestin (A-3): sc-271466. Western blot analysis of Visual Arrestin expression in non-transfected: sc-117752 (A) and mouse Visual Arrestin transfected: sc-124570 (B) 293T whole cell lysates.



Visual Arrestin (A-3): sc-271466. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Zou, T., et al. 2019. Organoid-derived C-Kit⁺/SSEA4⁻ human retinal progenitor cells promote a protective retinal microenvironment during transplantation in rodents. *Nat. Commun.* 10: 1205.
- El-Mansi, A.A., et al. 2020. Visual adaptability and retinal characterization of the Egyptian fruit bat (*Rousettus aegyptiacus*, *Pteropodidae*): new insights into photoreceptors spatial distribution and melanosomal activity. *Micron* 137: 102897.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.