SANTA CRUZ BIOTECHNOLOGY, INC.

Visual Arrestin (G-14): sc-34548

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

REFERENCES

1. Banga, J.P., et al. 1988. Analysis of antigenic determinants of retinal S-antigen with monoclonal antibodies. Invest Ophthalmol. Vis. Sci. 29: 12-21.
2. Palczewski, K., et al. 1989. Regulation of rhodopsin dephosphorylation by arrestin. J. Biol. Chem. 264: 15770-15773.
3. Yamaki, K., et al. 1990. Structural organization of the human S-antigen gene. cDNA, amino acid, intron, exon, promoter, *in vitro* transcription, retina and pineal gland. J. Biol. Chem. 265: 20757-20762.
4. Roberts, A.J., et al. 1992. Induction of experimental autoimmune uveoretinitis in Lewis rats with purified recombinant human retinal S-antigen fusion protein. Eur. J. Immunol. 22: 951-956.
5. Saga, M., et al. 2004. Gene analysis and evaluation of the single founder effect in Japanese patients with Oguchi disease. Jpn. J. Ophthalmol. 48: 350-352.
6. LocusLink Report (LocusID: 6295). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: SAG (human) mapping to 2q37.1, ARR3 (human) mapping to Xq13.1; Sag (mouse) mapping to 1 D, Arr3 (mouse) mapping to X C3.

SOURCE

Visual Arrestin (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Visual Arrestin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34548 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 (G-14) is recommended for detection of Visual Arrestin and C-Arrestin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (G-14) is also recommended for detection of Visual Arrestin and C-Arrestin in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Visual Arrestin: 48 kDa.

Positive Controls: RPE-J cell lysate: sc-24771 or Y79 cell lysate: sc-2240.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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