

Datasheet for ABIN1580413

**anti-SAG antibody****2** Images[Go to Product page](#)

## Overview

Quantity:	100 µL
Target:	SAG
Reactivity:	Human, Mouse, Rat, Cow, Pig
Host:	Mouse
Clonality:	Monoclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

## Product Details

Clone:	S128
Isotype:	IgG1
Purification:	affinity purified antibody

## Target Details

Target:	SAG
Alternative Name:	Arrestin-1/ S-antigen ( <a href="#">SAG Products</a> )
Background:	The arrestin proteins are a family of regulators of cell signaling of G protein-coupled receptors (GPCR). Visual arrestin was first discovered as a result of the experimental model of human uveitis, an autoimmune disease of the eye. In this model, called experimental allergic uveitis, animals were injected with extracts made from the retina of the same species mixed with Freund's complete adjuvant. The animals mounted a strong immune response to the extract,

## Target Details

and the antibody response was used to identify several immunogenic retinal proteins. One of these was called S-antigen, for soluble antigen. The protein was found to be abundant in retina, about 48 kDa in molecular weight, and localized in the outer segments of the photoreceptors. Several years later, Hermann K<sup>o</sup>hn and colleagues discovered that this protein binds to phosphorylated rhodopsin and prevents this protein from activating transducin. Transducin is a typical heterotrimeric G protein, composed of alpha, and beta, gamma, subunits. Rhodopsin phosphorylation is mediated by Rhodopsin kinase (a.k.a. GRK1), the prototypic member of a family of GPCR kinases. Since the S-antigen protein arrested the activity of rhodopsin it was renamed arrestin, and became the prototypic member of the arrestin protein family. Subsequently, Robert

Pathways: [Regulation of G-Protein Coupled Receptor Protein Signaling](#)

## Application Details

Application Notes: Try at dilutions of ~1:1,000 for immunofluorescence. For western blots try at 1:5,000. A suitable control tissue is retinal homogenate. The arrestin protein runs at about ~48 kDa on SDS-PAGE gels.

Restrictions: For Research Use only

## Handling

Format: Liquid

Concentration: 1 mg/mL

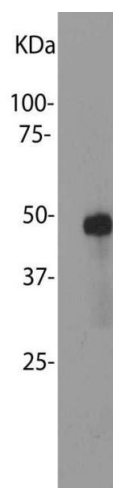
Preservative: Sodium azide

Precaution of Use: This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

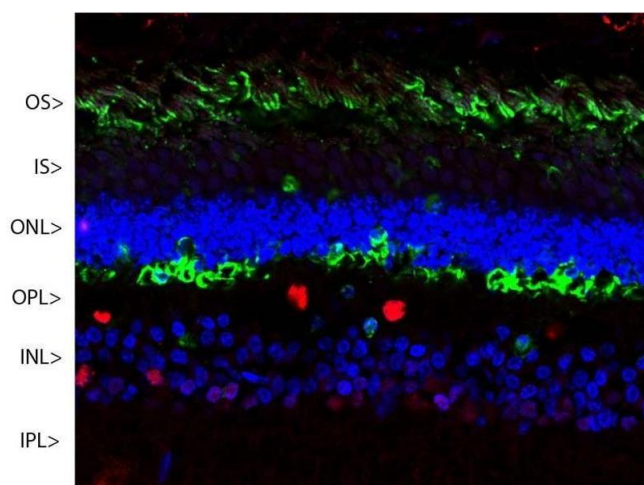
Storage: 4 °C/-20 °C

Storage Comment: Store at 4°C short term or -20°C long term.



### Western Blotting

**Image 1.** Blot of bovine retinal extracts probed with ABIN1580413. The antibody stains a band corresponding to retinal arrestin at about 48 kDa.



### Immunofluorescence

**Image 2.** Confocal image of a pig retina stained with ABIN1580413 (green). Visual arrestin is most abundant in the outer segments (OS) and inner surface of the outer nuclear layer (ONL), and can be used to identify components of rod photoreceptor cells. (Cone photoreceptors have a different arrestin isotype). Other retinal layers are inner segments (IS), outer plexiform layer (OPL), inner nuclear layer (INL) and inner plexiform layer (IPL). The red stain is Fox2, an RNA binding nuclear protein related to Fox3/NeuN, which stains nuclei of horizontal neurons and some other neurons in the INL and IPL. Nuclear DNA was revealed with DAPI (blue).