abcam

Product datasheet

Anti-GFP antibody ab5449

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Overview

Product name	Anti-GFP antibody
Description	Goat polyclonal to GFP
Host species	Goat
Specificity	Reactive against all variants of *Aequorea victoria* GFP such as S65T-GFP, RS-GFP, YFP and EGFP.
Tested applications	**Suitable for:** WB, IP
Species reactivity	**Reacts with:** Species independent
Immunogen	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
Positive control	Pure GFP protein, or cells known to overexpress GFP.
General notes	Protein A will not bind goat IgG, so use alternates (eg. protein G) in IP with this antibody. This antibody is available in an affinity purified form as **ab5450**. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.05% Sodium azide
Purity	Whole antiserum
Clonality	Polyclonal
Isotype	IgG

Applications

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab5449 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ **(1)**	1/5000 - 1/20000.
IP		Use 0.5µl for 10^6 cells.

Target

Relevance

Function: Energy-transfer acceptor. Its role is to transduce the blue chemiluminescence of the protein aequorin into green fluorescent light by energy transfer. Fluoresces in vivo upon receiving energy from the Ca^{2+} -activated photoprotein aequorin.

Subunit structure: Monomer.

Tissue specificity: Photocytes.

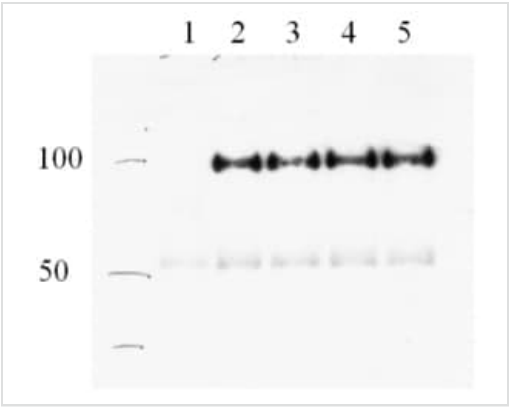
Post-translational modification: Contains a chromophore consisting of modified amino acid residues. The chromophore is formed by autocatalytic backbone condensation between Ser-65 and Gly-67, and oxidation of Tyr-66 to didehydrotyrosine. Maturation of the chromophore requires nothing other than molecular oxygen.

Biotechnological use: Green fluorescent protein has been engineered to produce a vast number of variously colored mutants, fusion proteins, and biosensors. Fluorescent proteins and its mutated allelic forms, blue, cyan and yellow have become a useful and ubiquitous tool for making chimeric proteins, where they function as a fluorescent protein tag. Typically they tolerate N- and C-terminal fusion to a broad variety of proteins. They have been expressed in most known cell types and are used as a noninvasive fluorescent marker in living cells and organisms. They enable a wide range of applications where they have functioned as a cell lineage tracer, reporter of gene expression, or as a measure of protein-protein interactions. Can also be used as a molecular thermometer, allowing accurate temperature measurements in fluids. The measurement process relies on the detection of the blinking of GFP using fluorescence correlation spectroscopy.

Sequence similarities: Belongs to the GFP family.

Biophysicochemical properties: Absorption: Abs(max)=395 nm
Exhibits a smaller absorbance peak at 470 nm. The fluorescence emission spectrum peaks at 509 nm with a shoulder at 540 nm.

Images



Western blot - Anti-GFP antibody (ab5449)

Lane 1 : parental YTS cells (negative control)
Lanes 2-5 : YTS cells transfected with KIR-EGFP (mw 88 kD)

KIR-EGFP IP's with Goat polyclonal to GFP (ab5449) using 0.1 ul for $2x10^6$ cells. KIR-EGFP detected with a mouse monoclonal to KIR receptor (Borszcz et al EGI 2003, 33: 1084).

Lane 1 : parental YTS cells (negative control) Lanes 2-5 : YTS cells transfected with KIR-EGFP (mw 88 kD) KIR-EGFP IP's with Goat polyclonal to GFP (ab5449) using 0.1 ul for 2x106 cells. KIR-EGFP detected with a mouse monoclonal to KIR receptor (Borszcz et al EGI 2003, 33: 1084).

Western blot - Anti-GFP antibody (ab5449)

5 ng GFP on PVDF membrane QC. Goat polyclonal to GFP (ab5449) used at dilutions of:
Lane 1 : 1/2500
Lane 2 : 1/5000
Lane 3 : 1/10,000
Lane 4 : 1/20,000

5 ng GFP on PVDF membrane QC. Goat polyclonal to GFP (ab5449) used at dilutions of: Lane 1 : 1/2500 Lane 2 : 1/5000 Lane 3 : 1/10,000 Lane 4 : 1/20,000

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