abcam

Product datasheet

Anti-GFP antibody [E385] ab32146

Recombinant RabMAb

4 Abreviews 80 References 3 Images

Overview

Product name	Anti-GFP antibody [E385]
Description	Rabbit monoclonal [E385] to GFP
Host species	Rabbit
Specificity	This antibody is specific for GFP and GFP fusion proteins.
Tested applications	**Suitable for:** WB **Unsuitable for:** ICC/IF or IP
Species reactivity	**Reacts with:** Species independent
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Pure GFP protein, or cells known to overexpress GFP.
General notes	On the basis of low sequence homology, ab32146 is predicted to show no or limited cross-reactivity to RFP and BFP. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Dissociation constant (K_D)	$K_D = 1.02 \times 10^{-12}$ M

Learn more about K_D

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	E385
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab32146 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	★★★★★ (3)	1/1000 - 1/20000. GFP - 27kDa, Proprietary tag/GFP fusion protein - 52kDa

Application notes Is unsuitable for ICC/IF or IP.

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.

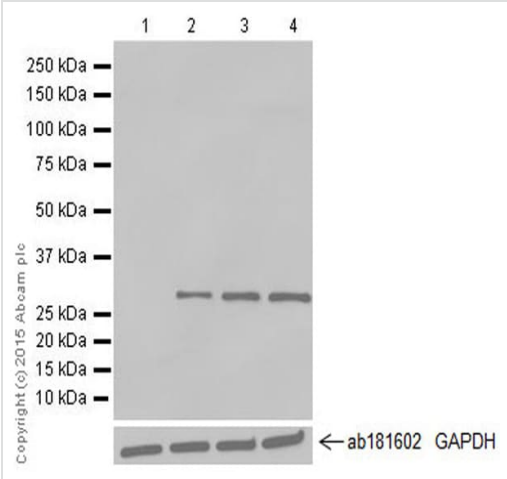
Biotechnological use: Green fluorescent protein has been engineered to produce a vast number of variously colored mutants, fusion proteins, and biosensors. Fluorescent proteins and its mutated allelic forms, blue, cyan and yellow have become a useful and ubiquitous tool for making chimeric proteins, 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 [E385] (ab32146)

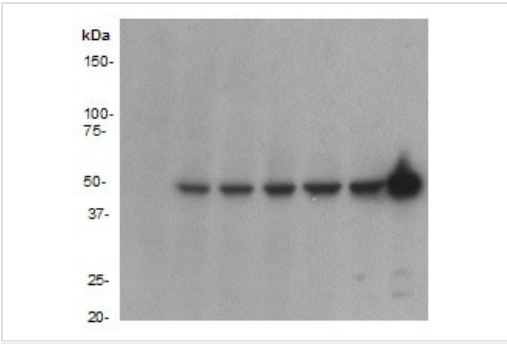
All lanes : Anti-GFP antibody [E385] (ab32146) at 1/20000 dilution (purified)

Lane 1 : HeLa whole cell lysate (negative control)
Lane 2 : HeLa whole cell lysate spike with recombinant proprietary tag-GFP fusion protein at 0.001 µg
Lane 3 : HeLa whole cell lysate spike with recombinant proprietary tag-GFP fusion protein at 0.002 µg
Lane 4 : HeLa whole cell lysate spike with recombinant proprietary tag-GFP fusion protein at 0.0025 µg

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Observed band size: 27 kDa

Blocking and dilution buffer: 5% NFDM /TBST.



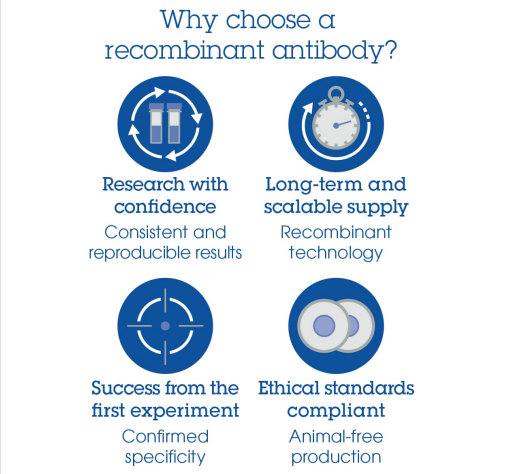
Western blot - Anti-GFP antibody [E385] (ab32146)

All lanes : Anti-GFP antibody [E385] (ab32146) at 1/20000 dilution (unpurified)

Lane 1 : HeLa cells lysate (negative control)
Lane 2 : HeLa cell lysate spike with recombinant Proprietary tag-GFP fusion protein at 0.1ng
Lane 3 : HeLa cell lysate spike with recombinant Proprietary tag-GFP fusion protein at 0.5ng
Lane 4 : HeLa cell lysate spike with recombinant Proprietary tag-GFP fusion protein at 1ng
Lane 5 : HeLa cell lysate spike with recombinant Proprietary tag-GFP fusion protein at 2ng
Lane 6 : HeLa cell lysate spike with recombinant Proprietary tag-

GFP fusion protein at 2.5ng

Lane 7 : Proprietary tag-GFP 0.1mg/ml (positive control)



Anti-GFP antibody [E385] (ab32146)

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