abcam

Product datasheet

Anti-GFP antibody [LGB-1] ab291

6 Abreviews 26 References 画像数 5

製品の概要

製品名	Anti-GFP antibody [LGB-1]
製品の詳細	Mouse monoclonal [LGB-1] to GFP
由来種	Mouse
特異性	This antibody recognizes all forms of GFP from Aquorea victoria (i.e. GFP, EGFP, YFP and CFP). See Abreview for CFP immunoprecipitation.
アプリケーション	**適用あり:** IP, ICC/IF, WB
種交差性	**交差種:** Species independent
免疫原	Recombinant full length protein corresponding to Escherichia coli GFP. Database link: **P42212**
ポジティブ・コントロール	Pure GFP protein, or cells known to overexpress GFP.
特記事項	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

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
バッファー	pH: 7.20 Constituents: PBS, 50% Glycerol
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	LGB-1
アイソタイプ	IgG1
軽鎖の種類	kappa

アプリケーション

The Abpromise guarantee Abpromise保証は、次のテスト済みアプリケーションにおけるab291の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IP	★★★★☆ (2)	Use at an assay dependent concentration.
ICC/IF	★★★★★ (1)	Use a concentration of 0.5 µg/ml.
WB	★★★★★ (2)	Use a concentration of 0.5 µg/ml. Detects a band of approximately 27 kDa (predicted molecular weight: 27 kDa).

ターゲット情報

関連性

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.

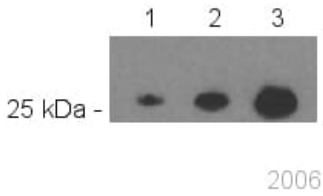
Post-translational modification: Contains a chromophore consisting of modified amino acid residues. The chromophore is formed by autocatalytic backbone condensation between Ser-65 and Gly-67, and oxidation of Tyr-66 to didehydrotyrosine. Maturation of the chromophore requires nothing other than molecular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

画像



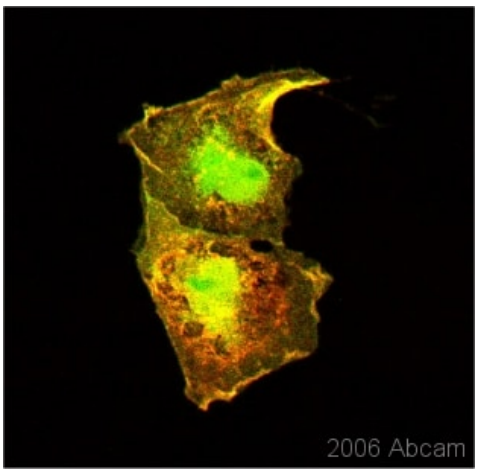
Western blot - Anti-GFP antibody [LGB-1] (ab291)

All lanes : Anti-GFP antibody [LGB-1] (ab291) at 0.5 µg/ml

Lane 1 : 5ng GFP
Lane 2 : 10ng GFP
Lane 3 : 25ng GFP

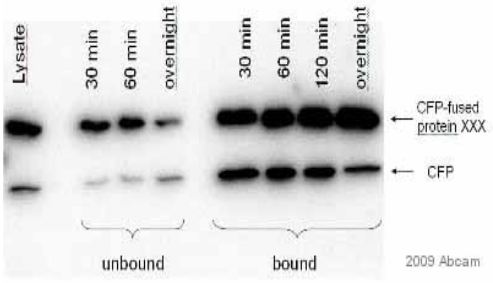
Secondary
All lanes : Sheep anti-mouse IgG HRP conjugate at 1/5000 dilution

Predicted band size: 27 kDa
Observed band size: 27 kDa



Immunocytochemistry/ Immunofluorescence - Anti-GFP antibody [LGB-1] (ab291)

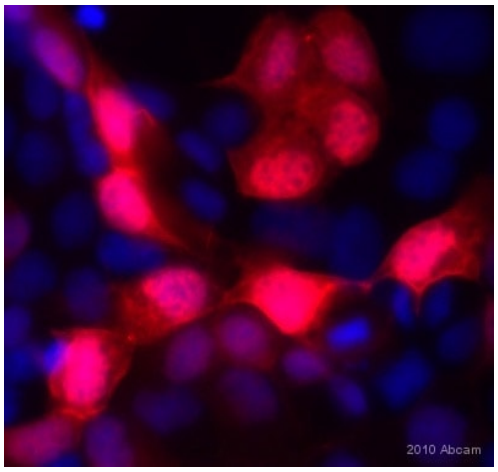
Paraformaldehyde fixed COS-7 cells expressing Myr-N15-PAK2-EGFP construct (Vilas et al.(2006) PNAS 103, 6542). Myr-N15-PAK2-EGFP fluorescence is shown in green. Indirect immunofluorescenct detection of N15-PAK-EGFP using ab291 monoclonal LGB-1 anti-GFP at 0.05 ug/ml with chicken anti-mouse secondary antibody conjugated to Alexa594 diluted 1/500 is shown in red. Myr-N15-PAK2-EGFP is localized to membrane ruffles and perinuclear vesicular structures (likely Golgi,TGN or late endosomes).



Immunoprecipitation - Anti-GFP antibody [LGB-1] (ab291)

This image was kindly supplied by Dr Lindsay Tulloch by Abreview

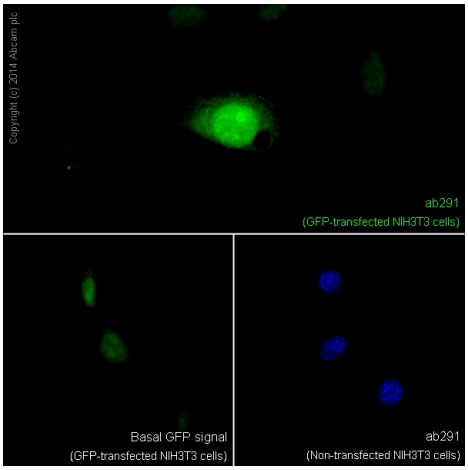
ab291 at 6.7µg/mg lysate.
HEK293 Cell lysate at 300µg.
Transfected with CFP-fused protein XXX in pECFP vector.
Immunoprecipitation step using Protein G.



Immunocytochemistry/ Immunofluorescence - Anti-GFP antibody [LGB-1] (ab291)

This image is courtesy of an Abreview submitted by Vladimir Milenkovic

ab291 staining GFP in Dog MDCKII cells transfected with GFP by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.5% TX100 and blocked with 5% serum for 20 minutes. Samples were incubated with primary antibody (1/250 PBS + 0.1% TX100 + 1% goat serum) for 16 hours at 4°C. An Alexa Fluor®546-conjugated Goat anti-mouse IgG polyclonal (1/500) was used as the secondary antibody. DAPI was used to stain nuclei. ab291 was used to assess electoporation efficiency of double transfected MDCKII cells.



Immunocytochemistry/ Immunofluorescence - Anti-GFP antibody [LGB-1] (ab291)

ab291 staining GFP in GFP-transfected NIH3T3 cells. The cells were fixed with 4% formaldehyde (10min) and then blocked in 1% BSA / 0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated with ab291 at 1/200 dilution overnight at +4°C followed by incubation with **ab150117**, Goat Anti-Mouse IgG H&L (Alexa Fluor® 488), for 1 hour, at 1µg/ml.
Under identical experimental conditions, when compared to the basal level of GFP expression in transfected NIH3T3 cells, the cells upon which ab291 was applied gave a stronger signal in the 488 channel, indicating that ab291 is binding to GFP and therefore eliciting signal amplification.
ab291 was also applied to non-GFP-transfected NIH3T3 cells, which produced no positive staining, indicating specificity for GFP. Nuclear DNA was labelled with 1.43µM DAPI (blue).

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.co.jp/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors