

### Anti-GFP antibody [LGB-1] ab291

★★★★★ [6 Abreviews](#) [26 References](#) [5 图像](#)

#### 概述

产品名称	Anti-GFP抗体[LGB-1]
描述	小鼠单克隆抗体[LGB-1] to GFP
宿主	Mouse
特异性	This antibody recognizes all forms of GFP from <i>Aequorea victoria</i> (i.e. GFP, EGFP, YFP and CFP). See Abreview for CFP immunoprecipitation.
经测试应用	<b>适用于:</b> IP, ICC/IF, WB
种属反应性	<b>与反应:</b> Species independent
免疫原	Recombinant full length protein corresponding to <i>Escherichia coli</i> GFP. Database link: <a href="#">P42212</a>
阳性对照	Pure GFP protein, or cells known to overexpress GFP.
常规说明	<p>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.</p> <p>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&amp;As</p>

#### 性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	pH: 7.20 Constituents: PBS, 50% Glycerol
纯度	Protein A purified
克隆	单克隆
克隆编号	LGB-1
同种型	IgG1
轻链类型	kappa

## 应用

### The Abpromise guarantee

**Abpromise™**承诺保证使用ab291于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
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).

## 靶标

### 相关性

**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  $\text{Ca}^{2+}$ -activated photoprotein aequorin.

**Subunit structure:** Monomer.

**Tissue specificity:** Photocytes.

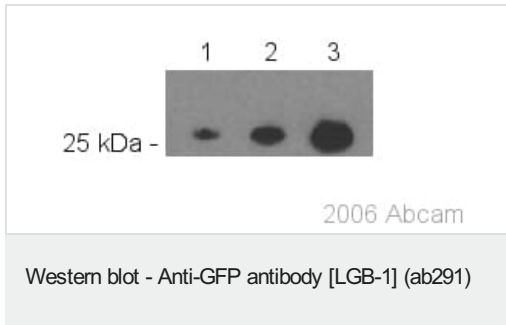
**Post-translational modification:** Contains a chromophore consisting of modified amino acid residues. The chromophore is formed by autocatalytic backbone condensation between Ser-65 and Gly-67, and oxidation of Tyr-66 to dihydroxytyrosine. Maturation of the chromophore requires nothing other than molecular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

## 图片



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

**Lane 1 :** 5ng GFP

**Lane 2 :** 10ng GFP

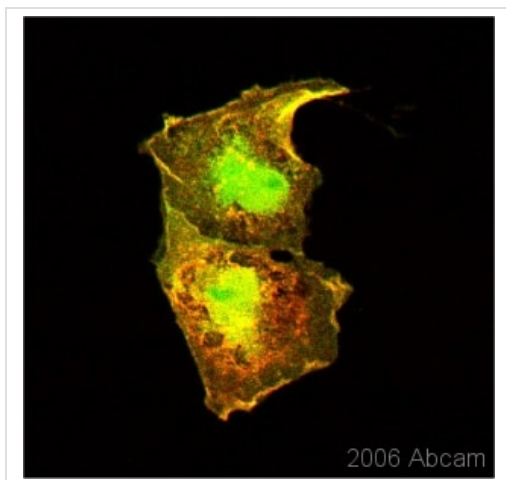
**Lane 3 :** 25ng GFP

### Secondary

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

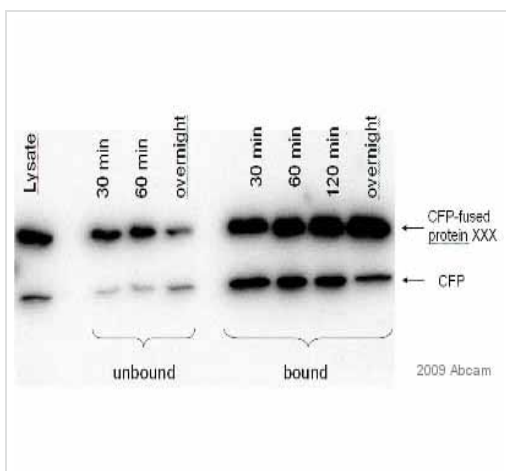
**Predicted band size:** 27 kDa

**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 immunofluorescent 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)

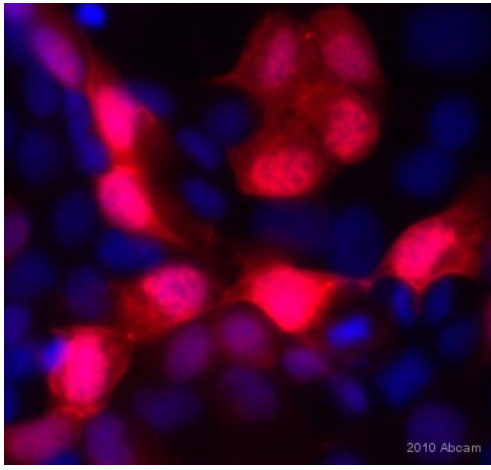
This image was kindly supplied by Dr Lindsay Tulloch by Abreview

ab291 at 6.7µg/mg lysate.

HEK293 Cell lysate at 300µg.

Transfected with CFP-fused protein XXX in pECFP vector.

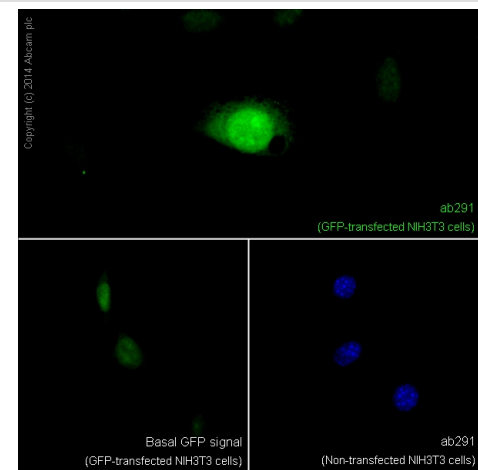
Immunoprecipitation step using Protein G.



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 electroporation 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).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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