Datasheet for ABIN349609

anti-GFP antibody (AA 1-246)

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Overview

Quantity:	100 µg
Target:	GFP
Binding Specificity:	AA 1-246
Reactivity:	Aequorea victoria
Host:	Chicken
Clonality:	Polyclonal
Conjugate:	This GFP antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Fluorescence Microscopy (FM)

Product Details

Immunogen:	The immunogen is a Green Fluorescent Protein (GFP) fusion protein corresponding to the full length amino acid sequence (246aa) derived from the jellyfish Aequorea victoria. Immunogen Type: RecombinantProtein
Isotype:	IgG
Specificity:	Anti-GFP Antibody IgY was prepared from egg yolks by immunoaffinity chromatography using Green Fluorescent Protein (Aequorea victoria) coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Chicken Serum and purified and partially purified Green Fluorescent Protein (Aequorea victoria). No reaction was observed against Human, Mouse or Rat serum proteins.
Cross-Reactivity:	recombinant GFP (rGFP), enhanced GFP (eGFP)

Product Details

Characteristics:	Anti-GFP is designed for immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting. GFP Antibody is also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms. Chicken IgY lacks the classic
Sterility:	Sterile filtered

Target Details

Target:	GFP
Alternative Name:	GFP (GFP Products)
Background:	Anti-GFP is designed for immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting. GFP Antibody is also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms. Chicken IgY lacks the classic "Fc" domain and does not bind to mammalian IgG Fc receptors. Thus resulting in lower backgrounds for western blotting, ELISA and Immunohistochemistry. Synonyms: GFP, Green Fluorescent Protein, GFP antibody, Green Fluorescent Protein antibody, EGFP, enhanced Green Fluorescent Protein, Aequorea victoria, Jellyfish.

Application Details

Application Notes:	Anti-GFP is designed to detect GFP and its variants. This antibody can be used to detect GFP by ELISA (sandwich or capture) for the direct binding of antigen and recognizes wild type, recombinant and enhanced forms of GFP. Biotin conjugated polyclonal anti-GFP used in a sandwich ELISA is well suited to titrate GFP in solution using this antibody in combination with monoclonal anti-GFP (600-301-215) using either form of the antibody as the capture or detection antibodies. However, use the monoclonal form only for the detection of wild type or recombinant GFP as this form does not sufficiently detect 'enhanced' GFP. The detection antibody is typically conjugated to biotin and subsequently reacted with streptavidin conjugated HRP Fluorochrome conjugated Polyclonal anti-GFP can be used to detect GFP by immunofluorescence microscopy in prokaryotic (E.coli) and eukaryotic (CHO cells) expression systems and can detect GFP containing inserts. Significant amplification of signal is achieved using fluorochrome conjugated polyclonal anti-GFP relative to the fluorescence of GFP alone. For immunoblotting use either alkaline phosphatase or peroxidase conjugated polyclonal anti-GFP to detect GFP or GFP containing proteins on western blots
Restrictions:	For Research Use only

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Handling

Format:	Liquid
Concentration:	0.64 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	Store vial at 4 °C prior to restoration. For extended storage aliquot contents and freeze at -20 °C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4 °C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is three (3) months from date of opening.
Expiry Date:	3 months

Publications

Product cited in:

Li, Cao, Xiao, Tang, Deng, Yang, Yoshii, Luo: "Hub-organized parallel circuits of central circadian pacemaker neurons for visual photoentrainment in Drosophila." in: **Nature communications**, Vol. 9, Issue 1, pp. 4247, (2019) (PubMed).

Goswami, Wang, Zhang, Xiao, Karlen, Li, Zawadzki, Burns, Lam, Pugh: "Novel window for cancer nanotheranostics: non-invasive ocular assessments of tumor growth and nanotherapeutic treatment efficacy in vivo." in: **Biomedical optics express**, Vol. 10, Issue 1, pp. 151-166, (2019) (PubMed).

Chiu, Martenson, Yamazaki, Natsume, Sakimura, Tomita, Tavalin, Higley: "Input-Specific NMDAR-Dependent Potentiation of Dendritic GABAergic Inhibition." in: **Neuron**, Vol. 97, Issue 2, pp. 368-377.e3, (2018) (PubMed).

Maruoka, Kedashiro, Ueda, Mizutani, Takai: "Nectin-4 co-stimulates the prolactin receptor by interacting with SOCS1 and inhibiting its activity on the JAK2-STAT5a signaling pathway." in: **The Journal of biological chemistry**, Vol. 292, Issue 17, pp. 6895-6909, (2017) (PubMed).

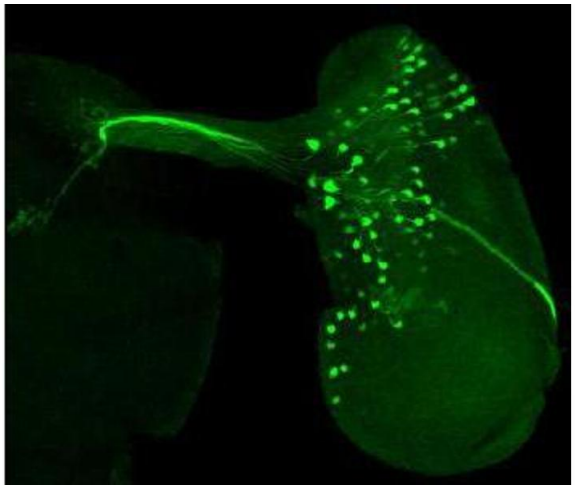
Boye, Alexander, Witherspoon, Boye, Peterson, Clark, Sandefer, Girkin, Hauswirth, Gamlin: "

Publications

Highly Efficient Delivery of Adeno-Associated Viral Vectors to the Primate Retina." in: **Human gene therapy**, Vol. 27, Issue 8, pp. 580-97, (2017) (PubMed).

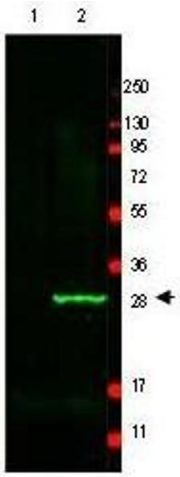
There are more publications referencing this product on: Product page

Images



Immunofluorescence

Image 1. Immunofluorescence Microscopy of chicken anti-GFP antibody. Tissue: KruppleGAL4 driver line in Drosophila eye disc. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: anti-GFP antibody diluted 1:500 for 2 hr at RT. Secondary antibody:488 conjugated anti-Chicken IgG at 1:300 for 1 hr at RT. Blocking: 5% NGS in PBS with 0.1% Triton X-100 for 15 min. Localization: E2F-1 pS364 is nuclear and occasionally cytoplasmic. Staining: recombinant tau-myc-GFP protein as green fluorescent signal.



Western Blotting

Image 2. Western Blot of anti-GFP antibody. Lane 1: mouse spleen lysate. Lane 2: mouse spleen lysate spiked with 50 ng of wt GFP. Load: 20 µg per lane. Primary antibody: GFP antibody at 2 µg/ml for 2 hr at room temperature. Secondary antibody:800 Conjugated Affinity Purified anti-Chicken IgG [H&L] [Goat] MX10 at 1:20,000 for 45 min at RT. Block: 5% BSA in PBS 2 hr at room temperature. Predicted/Observed size: 27 kDa for GFP epitope tag. Other band(s): none.

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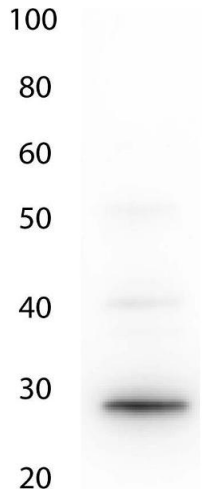

Western Blotting

Image 3. Western Blot of Anti-GFP (CHICKEN) antibody. Lane 1: MW. Lane 2: GFP. Load: 0.05 µg. Primary antibody: Anti-GFP (CHICKEN) antibody was used at 1:1000 overnight at 4°C. Secondary antibody: Anti-Chicken IgG (GOAT) peroxidase conjugated antibody secondary antibody was used at 1:40,000 in Blocking Buffer for Fluorescent Western Blotting . Block: 1% BSA-TTBS , diluted to 1X) 30 min at 20°C. Predicted/Observed size: 27 kDa for GFP. Other band(s): none.

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