Datasheet for ABIN129570

anti-GFP antibody (AA 246)

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Overview

Quantity:	100 µg
Target:	GFP
Binding Specificity:	AA 246
Reactivity:	Aequorea victoria
Host:	Rabbit
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 derived from the jellyfish Aequorea victoria.br Immunogentype:Recombinant
Isotype:	IgG
Cross-Reactivity:	recombinant GFP (rGFP), enhanced GFP (eGFP), S65T-GFP, RS-GFP, YFP
Characteristics:	Concentration Definition: by UV absorbance at 280 nm

Target Details

Target:	GFP
Alternative Name:	GFP (GFP Products)

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Target Details

Background:	Green fluorescent protein is a 27 kDa protein produced from the jellyfish Aequorea victoria, which emits green light (emission peak at a wavelength of 509nm) when excited by blue light. GFP is an important tool in cell biology research. GFP is widely used enabling researchers to visualize and localize GFP-tagged proteins within living cells without the need for chemical staining. GFP Antibody is ideal for Cell Biology, Neuroscience and Cancer research. 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 antibody is designed to detect GFP and its variants. GFP 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. Optimal titers for applications should be determined by the researcher.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.02 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.

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Handling

Storage:	-20 °C

Publications

Product cited in:

Twittenhoff, Heroven, Mühlen, Dersch, Narberhaus: "An RNA thermometer dictates production of a secreted bacterial toxin." in: **PLoS pathogens**, Vol. 16, Issue 1, pp. e1008184, (2020) (PubMed).

Wei, Long, Zheng, Dhungana, Lim, Guy, Wang, Wang, Qian, Xu, Kc, Saravia, Huang, Yu, Doench, Geiger, Chi: "Targeting REGNASE-1 programs long-lived effector T cells for cancer therapy." in: **Nature**, Vol. 576, Issue 7787, pp. 471-476, (2020) (PubMed).

Crochemore, Fernández-Molina, Montagne, Salles, Ricchetti: "CSB promoter downregulation via histone H3 hypoacetylation is an early determinant of replicative senescence." in: **Nature communications**, Vol. 10, Issue 1, pp. 5576, (2020) (PubMed).

Jo, Fonseca, Bocco, Fernandes, McAninch, Bolin, Da Conceição, Werneck-de-Castro, Ignacio, Egri, Németh, Fekete, Bernardi, Leitch, Mannan, Curry, Butterfield, Bassett, Williams, Gereben, Ribeiro et al.: "Type 2 deiodinase polymorphism causes ER stress and hypothyroidism in the brain. ..." in: **The Journal of clinical investigation**, Vol. 129, Issue 1, pp. 230-245, (2019) (PubMed).

Choi, Choi, Cho, Nam, Lee, Lee: "The Salmonella virulence protein MgtC promotes phosphate uptake inside macrophages." in: **Nature communications**, Vol. 10, Issue 1, pp. 3326, (2019) (PubMed).

There are more publications referencing this product on: Product page

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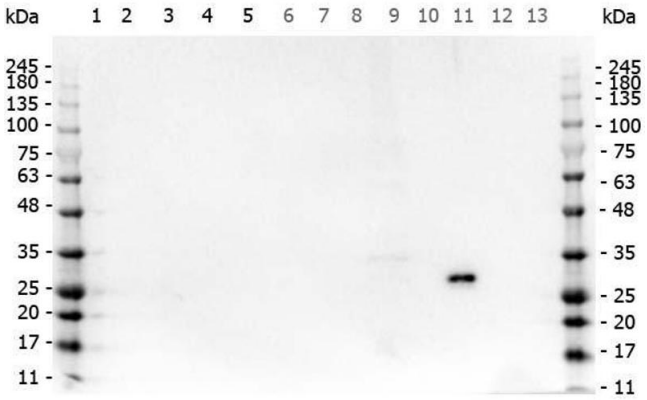

Western Blotting

Image 1. Western Blot of Rabbit anti-GFP antibody. Marker: Opal Pre-stained ladder . Lane 1: HEK293 lysate . Lane 2: HeLa Lysate . Lane 3: CHO/K1 Lysate . Lane 4: MDA-MB-231 . Lane 5: A431 Lysate . Lane 6: Jurkat Lysate . Lane 7: NIH/3T3 Lysate . Lane 8: E-coli HCP Control . Lane 9: FLAG Positive Control Lysate Lane 10: Red Fluorescent Protein . Lane 11: Green Fluorescent Protein . Lane 12: Glutathinoe-S-Transferase Protein Lane 13: Maltose Binding Protein . Load: 10 µg of lysate or 50ng of purified protein per lane. Primary antibody: GFP antibody at 1ug/mL overnight at 4C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:30,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS for 30 min at RT. Predicted/Observed size: 30 kDa for GFP.

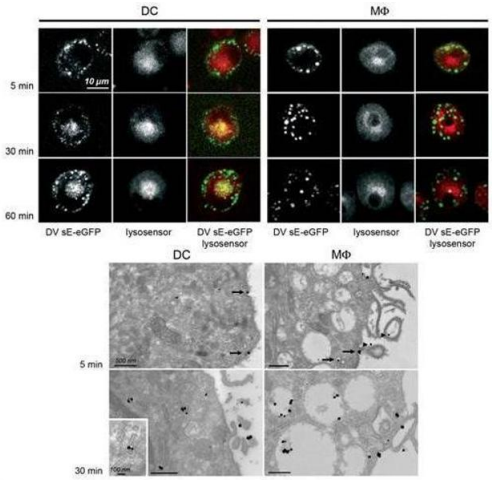

Image 2. Immuno-microscopy of Rabbit anti-GFP antibody. Monocyte derived dendritic cells and dermal macrophages were challenged and directly visualized with eGFP labeled Dengue virus to localize sequestration of virus particles in the different cells (upper). The location of the GFP was confirmed by TEM (lower magnified view) using rabbit anti GFP Primary antibody (1:200) and a gold labeled secondary antibody. As referenced in: Kwan W-H, Navarro-Sanchez E, Dumortier H, Decossas M, Vachon H, et al. (2008) Dermal-Type Macrophages Expressing CD209/DC-SIGN Show Inherent Resistance to Dengue Virus Growth. PLoS Negl Trop Dis 2(10): e311. doi:10.1371/journal.pntd.0000311

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