Anti-GFP (MOUSE) Monoclonal Antibody - 600-301-215

Code: 600-301-215 **Size:** 1 mg

Product Description: Anti-GFP (MOUSE) Monoclonal Antibody - 600-301-215

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Mouse
Species Reactivity	wt, rGFP, eGFP
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store mouse anti-GFP at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. 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.
Synonyms	mouse anti-GFP antibody, Green Fluorescent Protein, GFP antibody, Green Fluorescent Protein antibody, EGFP, enhanced Green Fluorescent Protein, Aequorea victoria, Jellyfish
Application Note	Monoclonal anti-GFP is designed to detect enhanced GFP and GFP containing recombinant proteins. This antibody can be used to detect GFP by ELISA (sandwich or capture) for the direct binding of antigen. Biotin conjugated monoclonal anti-GFP is well suited to titrate GFP in a sandwich ELISA in combination with Rockland's polyclonal anti-GFP (600-101-215) as the capture antibody. Only use the monoclonal form for the detection of enhanced or recombinant GFP. Polyclonal anti-GFP detects all variants of GFP tested to date. The biotin conjugated detection antibody is typically used with streptavidin conjugated HRP (code # S000-03) or other streptavidin conjugates. The use of polyclonal anti-GFP results in significant amplification of signal when fluorochrome conjugated polyclonal anti-GFP is used relative to the fluorescence of GFP alone. For immunoblotting use either alkaline phosphatase or peroxidase conjugated anti-GFP to detect GFP or GFP containing proteins on western blots. Optimal titers for applications should be determined by the researcher.
Background	Mouse anti-GFP antibody is functional by western blot, ELISA, Immunofluorescene Micorscopy and Immunohistochemistry. 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.
Purity And Specificity	GFP Monoclonal Antibody was prepared from tissue culture supernatant by Protein A affinity chromatography. Assay by Immunoelectrophoresis resulted in a single precipitin arc against anti-Mouse Serum. Reactivity is observed against recombinant Green Fluorescent Protein (000-001-215) from Aequorea victoria by both Western blot and ELISA. No reaction is seen against RFP.
Assay Dilutions	User Optimized
ELISA	1:10,000 - 1:30,000
Western Blot	1:3,000 - 1:30,000
Immunohistochemistry	1:1,000 - 1:5,000
IF Microscopy	User Optimized
Flow Cytometry	User Optimized
Other Assays	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	Recombinant Green Fluorescent Protein (GFP) fusion protein corresponding to the full length amino acid sequence (246 aa) derived from the jellyfish Aequorea victoria.

Specific Reference

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Terrell JL, Wu HC, Tsao CY, Barber NB, Servinsky MD, Payne GF, Bentley WE. (2015) Nano-guided cell networks as conveyors of molecular communication. Nat Commun. 2015 Oct 12;6:8500. doi: 10.1038/ncomms9500.

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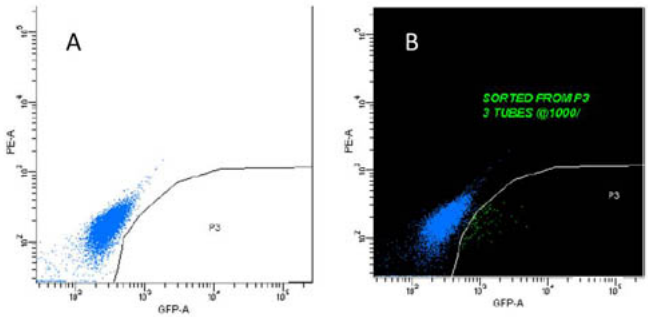
Related Products

200-301-268	Anti-AKT pS473 (MOUSE) Monoclonal Antibody - 200-301-268
610-4302	Anti-MOUSE IgG (H&L) (RABBIT) Antibody Peroxidase Conjugated - 610-4302
611-1302	Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 611-1302
B304	NORMAL GOAT SERUM (NGS) - B304

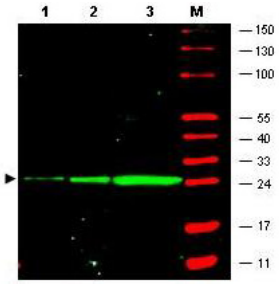
Images

1 Mouse monoclonal Anti-GFP antibody is able to detect positive cell population in cytoflow analysis. A. cells were not stained with anti-GFP antibody/fluorescence complex. B. Cells were stained with anti-GFP antibody/fluorescence complex and sorted. All recovered individual cells sorted by FACS have been re-confirmed to be positive.

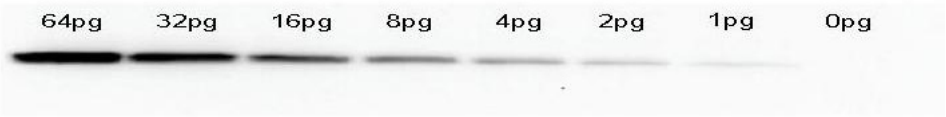


2 Western Blot of Mouse anti-GFP antibody. Lane 1: Molecular Weight Markers. Lane 2: GFP. Load: 10ng per lane.Primary antibody: Ms Anti-GFP antibody at 1:1000 for overnight at 4°C.Secondary antibody: Mouse HRP secondary antibody at 1:40,000 for 30 min at RT.Block: 5% BLOTTO overnight at 4°C.Predicted/Observed size: 27 kDa, 27 kDa for epitope tag GFP. Other band(s): None.

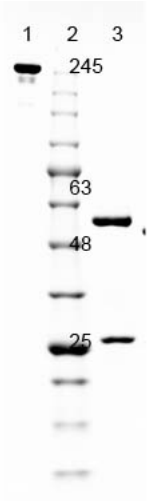
3 Western Blot of monoclonal anti-GFP antibody. Lane 1: HeLa lysate 50 ng. Lane 2: HeLa lysate 100 ng. Lane 3: HeLa lysate 500 ng. Primary antibody: GFP antibody at 1.0 mg/ml for 1 h at room temperature.Secondary antibody: IRDye® 800 conjugated Goat-a-Mouse IgG [H&L] MX10 (610-132-121) at 1:2,500 dilution for 45 min at RT.Block: 5% BLOTTO overnight at 4°C.Predicted/Observed size: 27 kDa, 27 kDa for epitope tag GFP. Other band(s): none.



4 Western Blot of anti-GFP monoclonal antibody. Lane 1: 64pg of recombinant GFP protein (p/n 000-001-215) were spiked into a HeLa cell-derived lysates (p/n W09-000-364). Lane 2: 32pg of recombinant GFP protein were spiked into a HeLa cell-derived lysates. Lane 3: 16pg of recombinant GFP protein were spiked into a HeLa cell-derived lysates. Lane 4: 8pg of recombinant GFP protein were spiked into a HeLa cell-derived lysates. Lane 5: 4pg of recombinant GFP protein were spiked into a HeLa cell-derived lysates. Lane 6: 2pg of recombinant GFP protein were spiked into a HeLa cell-derived lysates. Lane 7: 1g of recombinant GFP protein were spiked into a HeLa cell-derived lysates. Lane 8: 0pg of recombinant GFP protein were spiked into a HeLa cell-derived lysates. Primary antibody: anti-GFP monoclonal antibody at 1:400 for overnight at 4°C.Secondary antibody: HRP-conjugated anti-Mouse IgG (p/n 610-4302) was performed at a dilution of 1:20,000 for 1h at 4°C. Block: TTBS (p/n MB-013) supplemented with 1% BSA (p/n BSA-50) for 1 h at 4°C.Predicted/Observed size: 27 kDa for GFP. Other band(s): none.



5 SDS PAGE of Mouse anti-GFP antibody. Lane 1: GFP non-reduced. Lane 2: Molecular Weight Markers. Lane 3: GFP reduced. Load: 10 µg per lane.Other band(s): none.



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