Anti-GFP (GOAT) Antibody - 600-101-215S

Code: 600-101-215S **Size:** 25 µL

Product Description: Anti-GFP (GOAT) Antibody - 600-101-215S

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

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Goat
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 vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Synonyms	goat anti-GFP antibody, GFP, Green Fluorescent Protein, GFP antibody, Green Fluorescent Protein antibody, EGFP, enhanced Green Fluorescent Protein, Aequorea victoria, Jellyfish
Application Note	Anti-GFP is designed to detect GFP and its variants. Goat Anti-GFP is ideal for western blotting, ELISA, Immunohistochemistry and IP. 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 Rockland's monoclonal anti-GFP (600-301-215) using either form of the antibody as the capture or detection antibody. 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-HRP (code # S000-03). 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 detects 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. Researchers should determine optimal titers for applications.
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.
Purity And Specificity	GFP antibody was prepared from monospecific antiserum 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-Goat Serum and purified and partially purified Green Fluorescent Protein (Aequorea victoria). No reaction was observed against Human, Mouse or Rat serum proteins.
Assay Dilutions	User Optimized
ELISA	1:10,000 - 1:30,000
Western Blot	1:1,000 - 1:10,000
Immunohistochemistry	1:200 - 1:1,000
IF Microscopy	1:500
Other Assays	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
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.
General Reference	Phillips G., (2001) Green fluorescent protein--a bright idea for the study of bacterial protein localization. FEMS Microbiol Lett 204 (1): 9–18. doi:10.1016/S0378-1097(01)00358-5. PMID

Specific Reference

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Related Products

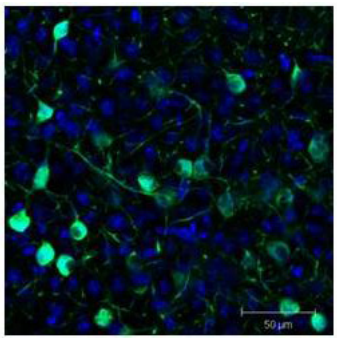
200-301-268	Anti-AKT pS473 (MOUSE) Monoclonal Antibody - 200-301-268
600-101-215	Anti-GFP (GOAT) Antibody - 600-101-215
610-4302	Anti-MOUSE IgG (H&L) (RABBIT) Antibody Peroxidase Conjugated - 610-4302
611-1302	Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 611-1302

Related Links

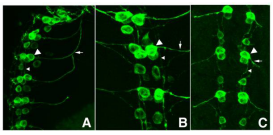
UniProtKB - P42212

Images

1 Immunofluorescence Microscopy of GFP-GOAT-Antibody. Tissue: Sf-1:Cre mice crossed to the Z/EG reporter line. Mouse brain (coronal view, 20X magnification). Fixation: 4%PFA/PBS with o/n fixation, and subsequently transferred to a 30% sucrose solution.Antigen retrieval: frozen in OCT freezing medium (Sakura) and cryostat sectioned at 40 microns.Primary antibody: Goat anti-GFP was used at 1:500 dilution in free floating imunnohistochemistry to detect GFP.Secondary antibody: Fluorchrome conjugated Anti-goat IgG secondary antibody was used for detection at 1:500 at 1:10,000 for 45 min at RT.Localization: Sf-1+ neurons and their processes of the ventromedial nucleus of the hypothalamus.Staining: eGFP as green fluorescent signal and sections were counterstained with DAPI.

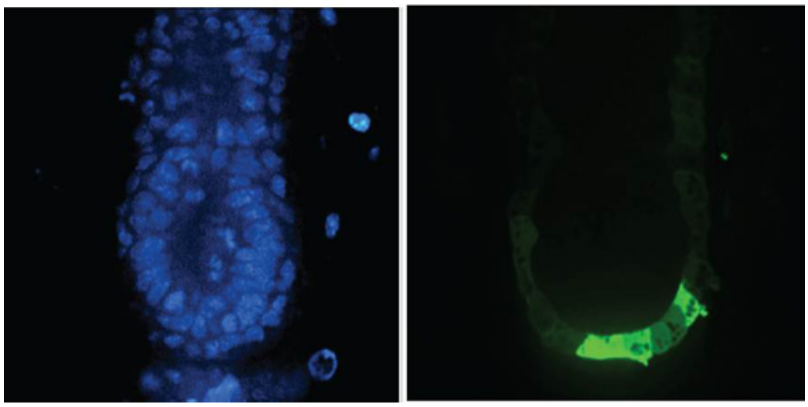


2 Immunofluorescence Microscopy of GFP-GOAT Antibody. Tissue: Drosophila melanogaster late stage embryonic central nervous system. Fixation: 0.5% PFA. Antigen retrieval: not required.Primary antibody: Anti-GFP antibody at a 1:1,000 for 1 h at RT.Secondary antibody: AlexaFluor 488™ conjugated Anti-Goat antibody at 1:300 for 45 min at RT.Panel A: shows a lateral view (ventral left). Panels B and C: shows ventral views of whole mount embryos at 63x magnification (plus 2x digital zoom). In all panels, anterior is up.Staining: tau-GFP cell bodies (large arrowhead) and axons of motorneurons (arrow) and interneurons (small arrowhead) as green fluorescent signal.


A
B
C

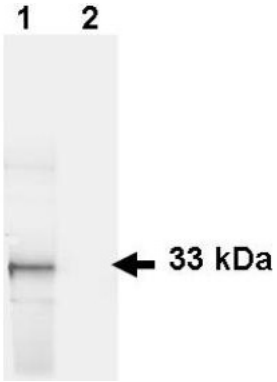
3

Immunofluorescence Microscopy of Anti-GFP (GOAT) Antibody. Tissue: E5.5 Hex-GFP transgenic mouse embryo. Primary antibody: Goat anti-GFP was used at 1:500 dilution.Secondary antibody: Fluorchrome conjugated Anti-goat IgG secondary antibody at 1:10,000 for 45 min at RT.Staining: GFP as green fluorescent signal with DAPI blue counterstain.



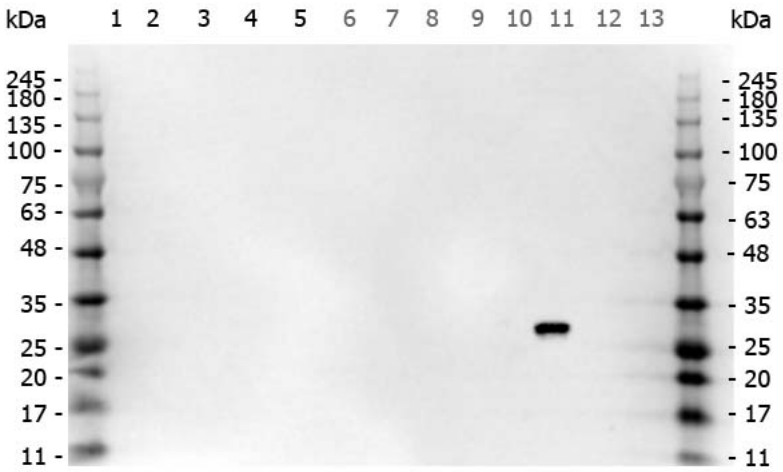
4

Western Blot of Rabbit Anti-GFP antibody. Lane 1: HeLa cells. Lane 2: mock transfected HeLa cell lysate. Load: 35 µg per lane.Primary antibody: GFP antibody at 1 µg/ml for 1 h at room temperature.Secondary antibody: IRDye® 800 conjugated Donkey-a-Goat IgG [H&L] MX7 (605-732-125) secondary antibody at 1:2,500 for 45 min at RT.Block: 5% BLOTTO overnight at 4°C.Predicted/Observed size: 27 kDa, 33 kDa for GFP. Other band(s): none.



5

Marker: Opal Pre-stained ladder (p/n MB-210-0500). Lane 1: HEK293 lysate (p/n W09-000-365). Lane 2: HeLa Lysate (p/n W09-000-363).Lane 3: CHO/K1 Lysate (p/n W07-000-357).Lane 4: MDA-MB-231 (p/n W09-001-GK6).Lane 5: A431 Lysate (p/n W09-000-361).Lane 6: Jurkat Lysate (p/n W09-001-370).Lane 7: NIH/3T3 Lysate (p/n W10-000-358).Lane 8: E-coli HCP Control (p/n 000-001-J08).Lane 9: FLAG Positive Control Lysate (p/n W00-001-383Lane 10: Red Fluorescent Protein (p/n 000-001-379).Lane 11: Green Fluorescent Protein (p/n 000-001-215).Lane 12: Glutathinoe-S-Transferase ProteinLane 13: Maltose Binding Protein (p/n 000-001-385).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 goat 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.



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