**GFP Tag Antibody**

**Purified Mouse Monoclonal Antibody (Mab)**

**Catalog # AM1009a**

### Specification

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### Target/Specificity

Purified His-tagged GFP protein was used to produced this monoclonal antibody.

### Dilution

- IF—1:25
- WB—1:4000

### Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### Precautions

GFP Tag Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### GFP Tag Antibody - Protein Information

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<th><strong>GFP Tag Antibody - Protocols</strong></th>
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- **Western Blot**
- **Blocking Peptides**
- **Dot Blot**
- **Immunohistochemistry**
- **Immunofluorescence**

Immunofluorescent analysis of GFP using either natural fluorescence (green) or an GFP antibody (red) in Hela (human cervical epithelial adenocarcinoma cell line) cells transfected with GFP recombinant protein. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 for 10 minutes at room temperature and blocked with 3% BSA for 30 minutes at room temperature. Cells were probed with an GFP monoclonal antibody (Product # AM1009a) at a dilution of 1:25 for 1 hour at 37°C, and incubated with DyLight 555 goat anti-mouse IgG secondary antibody (Product # 1511348) at a dilution of 1:200 for 60 minutes at 37°C. The nuclear counter stain is DAPI (blue).
Immunoprecipitation  
Flow Cytometry  
Cell Culture

**Anti-GFP Tag Antibody at 1:2000 dilution + GFP protein lysate Lysates/proteins at 20 µg per lane.** Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 28 kDa

**Blocking/Dilution buffer: 5% NFDM/TBST.**

**Western blot analysis of lysate from GFP protein, using GFP Tag Antibody(Cat. #AM1009a). AM1009a was diluted at 1:4000. A goat anti-mouse IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 35µg.**

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**GFP Tag Antibody - Background**

Green fluorescent protein (GFP), originally isolated from the jellyfish *Aequorea victoria*, is one of the best visual reporters for monitoring gene expression in vivo and in situ. GFP is also a convenient marker for use in flow cytometry because it eliminates the need to incubate with a secondary reagent (such as dyes or antibodies) for detection. However, anti-GFP antibody is also widely used for co-immunoprecipitation, co-localization or western blotting for the confirmation of specificity when a GFP fusion protein is expressed in cells. Abgent’s anti-GFP monoclonal antibody provides a simple solution to detect the expression of a GFP-tagged protein in cells. Because of its ability to spontaneously generate its own fluorophore, the green fluorescent protein (GFP) from the jellyfish *Aequorea victoria* is used extensively as a fluorescent marker in molecular and cell biology. The yellow fluorescent proteins (YFPs) have the longest wavelength emissions of all GFP variants examined to date. This shift in the spectrum is the result of a T203Y substitution (single-letter amino acid code), a mutation rationally designed on the basis of the X-ray structure of GFP S65T. Abgent's anti-GFP monoclonal antibody can detect both GFP and YFP but not BFP (Blue fluorescent protein) by western blotting.

**GFP Tag Antibody - References**

GFP Tag Antibody - Citations

- Dual Roles of Two Isoforms of Autophagy-related Gene ATG10 in HCV-Subgenomic replicon Mediated Autophagy Flux and Innate Immunity.
- The common parasite Toxoplasma gondii induces prostatic inflammation and microglandular hyperplasia in a mouse model.
- Quantitative interaction mapping reveals an extended UBX domain in ASPL that disrupts functional p97 hexamers.
- Inactivation of TGFβ receptors in stem cells drives cutaneous squamous cell carcinoma.
- Stress Granules Modulate SYK to Cause Microglial Cell Dysfunction in Alzheimer’s Disease.
- Expression and Purification of the Alpha Subunit of the Epithelial Sodium Channel, ENaC.
- Physical and Functional Interactions between a Glioma Cation Channel and Integrin β1 Require α-Actinin.
- Moesin and myosin phosphatase confine neutrophil orientation in a chemotactic gradient.
- Best practices for fluorescence microscopy of the cyanobacterial circadian clock.
- The Toxoplasma gondii centrosome is the platform for internal daughter budding as revealed by a Nek1 kinase mutant.
- RpL22e, but not RpL22e-like-PA, is SUMOylated and localizes to the nucleoplasm of Drosophila meiotic spermatocytes.
- Low temperature and chemical rescue affect molecular proximity of DeltaF508-cystic fibrosis transmembrane conductance regulator (CFTR) and epithelial sodium channel (ENaC).
- Glioma-specific cation conductance regulates migration and cell cycle progression.
- Interaction of ASIC1 and ENaC subunits in human glioma cells and rat astrocytes.
- Enhanced erythropoiesis in Hfe-KO mice indicates a role for Hfe in the modulation of erythroid iron homeostasis.
- Proteolytic cleavage of human acid-sensing ion channel 1 by the serine protease matriptase.
- A Toxoplasma MORN1 null mutant undergoes repeated divisions but is defective in basal assembly, apicoplast division and cytokinesis.
- The unique hypusine modification of eIF5A promotes islet beta cell inflammation and dysfunction in mice.
- Knockdown of ASIC1 and epithelial sodium channel subunits inhibits glioblastoma whole cell current and cell migration.
- Kv4 accessory protein DPPX (DPP6) is a critical regulator of membrane excitability in hippocampal CA1 pyramidal neurons.
- Localization of the phosphoethanolamine methyltransferase of the human malaria parasite Plasmodium falciparum to the Golgi apparatus.