

Monoclonal Antibody to GFP - FITC

Alternate names:	GFP-Tag, Green fluorescent protein
Catalog No.:	R1461F
Quantity:	1 mg
Concentration:	1.0 mg/ml (by UV absorbance at 280 nm)
Background:	<p>Green fluorescence protein (GFP) is a 27 kDa protein derived from the jellyfish <i>Aequorea victoria</i>, which emits green light (emission peak at a wavelength of 509 nm) when excited by blue light (excitation peak at a wavelength of 395 nm). Green Fluorescent Protein (GFP) has become an invaluable tool in cell biology research, since its intrinsic fluorescence can be visualized in living cells. GFP fluorescence is stable under fixation conditions and suitable for a variety of applications. GFP has been widely used as a reporter for gene expression, enabling researchers to visualize and localize GFP-tagged proteins within living cells without the need for chemical staining. Other applications of GFP include assessment of protein-protein interactions through the yeast two hybrid system and measurement of distance between proteins through fluorescence energy transfer (FRET) protocols. GFP technology has considerably contributed to a greater understanding of cellular physiology.</p> <p>YFP differs from GFP due to a mutation at T203Y; antibodies raised against full-length GFP should also detect YFP and other variants.</p>
Uniprot ID:	P42212
NCBI:	6100
Host / Isotype:	Mouse / IgG2a
Clone:	9F9.F9
Immunogen:	The immunogen is a GST- Green Fluorescent Protein (GFP) fusion protein corresponding to the full length amino acid sequence (246aa) derived from the jellyfish <i>Aequorea victoria</i> .
Format:	<p>State: Lyophilized purified Ig fraction. Purification: Protein A chromatography. Buffer System: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, containing 0.01% (w/v) Sodium Azide as preservative and 10 mg/ml Bovine Serum Albumin (BSA, IgG and Protease free) as stabilizer. Label: FITC – Fluorescein isothiocyanate (Molecular Weight 390 daltons) <i>Absorption / Emission:</i> 495 nm / 528 nm <i>Molar Ratio:</i> 3.5 moles FITC per mole of Mouse IgG). Reconstitution: Restore with 1.0 ml of deionized water (or equivalent).</p>
Applications:	Designed to detect GFP and its variants in ELISA (sandwich or capture), Immunoblotting and Immunoprecipitation. Monoclonal and polyclonal forms of anti-GFP assayed by ELISA

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for direct binding of antigen recognize wild type, recombinant and enhanced forms of GFP. Monoclonal and polyclonal forms anti-GFP assayed in a sandwich ELISA are well suited to titrate GFP in solution using either form of the antibody as the capture or detection antibodies. The detection antibody is typically conjugated to biotin and complexed with streptavidin-HRP. Fluorochrome conjugated anti-GFP was assayed by Immunofluorescence microscopy on prokaryotic (E.coli) and eukaryotic (CHO cells) expression systems and was shown to detect GFP containing inserts. Significant amplification of signal was detected using fluorochrome conjugated anti-GFP relative to the fluorescence of GFP alone. Peroxidase conjugated anti-GFP assayed by Immunoblot shows a 42 kDa band when reacted with GFP on a western blot. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This product was prepared from tissue culture supernatant by Protein A chromatography. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Mouse Serum.

Reactivity is observed against wild type, recombinant and enhanced forms of GFP.

Storage: Store vial at 2-8°C prior to restoration. For extended storage mix with glycerol to 50% and then aliquot contents and freeze at -20°C or below. Centrifuge product if not completely clear after standing at room temperature. This product is stable for one month at 2-8°C as an undiluted liquid. Dilute only prior to immediate use.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General References: 1. The and Feltkamp, Immunology 18; 865, 1970.

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