

Product datasheet for R1091AP

GFP Goat Polyclonal Antibody

Product data:

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	Polyclonal anti-GFP antibody is designed to detect GFP and its variants. 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 monoclonal anti-GFP antibody (R1461P) 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 (RA021HRP). Fluorochrome conjugated polyclonal anti-GFP antibody 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 antibody relative to the fluorescence of GFP alone. For immunoblotting use either alkaline phosphatase or peroxidase conjugated polyclonal anti-GFP antibody to detect GFP or GFP containing proteins on western blots. <u>Recommended Dilutions:</u> ELISA: 1/2,000-1/8,000. Western blot: 1/500-1/2,500. Immunohistochemistry: 1/200-1/1,000.
Reactivity:	A. victoria
Host:	Goat
Clonality:	Polyclonal
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 Aequorea victoria.
Specificity:	Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum, anti-Alkaline Phosphatase and purified and partially purified Green Fluorescent Protein (Aequorea victoria) Serum. No reaction was observed against Human, Mouse and Rat Serum Proteins.



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Formulation:	0.05M Tris Chloride, 0.15M Sodium Chloride, 0.001M Magnesium Chloride, 0.0001M Zinc Chloride, 50% (v/v) Glycerol, pH 8.0 Label: AP State: Liquid (sterile filtered) purified lg fraction. Stabilizer: 10 mg/ml BSA (lgG and Protease free) Preservative: 0.09% (w/v) Sodium Azide Label: Alkaline Phosphatase (Calf Intestine, MW 140 kDa)
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography using Green Fluorescent Protein (Aequorea victoria) coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities.
Conjugation:	AP
Storage:	This product is stable at 2-8°C as an undiluted liquid. Dilute only prior to immediate use. DO NOT FREEZE. Freezing alkaline phosphatase conjugates will result in a substantial loss of enzymatic activity.
Stability:	Shelf life: one year from despatch.
Database Link:	<u>P42212</u>
Background:	Green fluorescence protein (GFP) is a 27 kDa protein derived from the jellyfish Aequorea victoria, which emits green light (emission peak at a wavelenth of 509 nm) when excited by blue light (excitation peak at a wavelenth 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 technnology has considerably contributed to a greater understanding of cellular physiology. YFP differs from GFP due to a mutation at T203Y; antibodies raised against full-length GFP should also detect YFP and other variants.
Synonyms:	Green fluorescent protein, GFP-Tag

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