ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Monoclonal Anti-Green Fluorescent Protein (GFP) Antibody Conjugates

☐ **Cat.** GFP12-M	Mouse Monoclonal Anti-GFP IgG-**HRP** Conjugate	**SIZE**: 100 ug
☐ **Cat.** GFP12-HRP	Mouse Monoclonal Anti-GFP IgG-**HRP** Conjugate	**SIZE**: 0.5 ml
☐ **Cat.** GFP12-BTN	Mouse Monoclonal Anti-GFP IgG-**Biotin** Conjugate	**SIZE**: 0.5 ml
☐ **Cat.** GFP12-AP	Mouse Monoclonal Anti-GFP IgG-**AP** Conjugate	**SIZE**: 0.5 ml
☐ **Cat.** GFP12-FITC	Mouse Monoclonal Anti-GFP IgG-**FITC** Conjugate	**SIZE**: 0.5 ml

Recombinant DNA technology allows the addition of short pieces of well-defined tags, "peptides" or proteins at the amino or c-terminus of target genes, which can provide 'affinity handles' designed to bind specific matrices. Therefore, tags enables a selective identification and purification of the protein of interest. The addition of a green fluorescent protein (GFP) tag to a given gene, creates a stable fusion product that does not appear to interfere with the bioactivity of the protein, or with the biodistribution of the GFP tagged product. GFP is a 27 kD (238 a.a.) protein, derived from the bioluminescent jellyfish *Aequorea victoria,* in which light is produced when energy is transferred from the Ca2+-activated photoprotein aequorin to GFP. GFP is acknowledged as a unique tool to monitor dynamic processes in a variety of living cells or organisms. When expressed in either eukaryotic or prokaryotic cells and illuminated by blue or UV light, GFP yields a bright green fluorescence. Light-stimulated GFP fluorescence is species-independent and a fluorescence has been reported from many different types of GFP-expressing hosts, including microbes, invertebrates, vertebrates and plants. Monoclonal antibody reacting specifically with GFP may be useful in various immunotechniques, to identify the expression of a GFP fusion protein *in situ* and by immunoblotting, in bacteria, bacterial lysates or cells and tissues transfected with a GFP fusion protein expressing vectors. It may also be used to correlate levels of GFP protein expression with fluorescence intensity and for immunoprecipitation of GFP fusion proteins.

Source of Antigen and Antibodies

Cat# GFP12-M, Unlabeled

Full length GFP form jellyfish aequorea Victoria was expressed and purified (>95%) and used to produce mouse monoclonal antibodies. Antibodies (IgG2a) was purified from mouse ascites (#GFP12-M) and coupled to biotin, HRP, AP and FITC.. Unlabeled antibodies in supplied in PBS, pH 7.4 and 0.05% azide in liquid or powder form.

Secondary Antibodies
Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available))

-ve control IgG
Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control

Cat# GFP12-HRP, HRP conjugate

GFP12-M was coupled to horse radish peroxidase, HRP (**Cat # GFP12-HRP**) using glutaraldehyde method. Antibody:HRP molar ratio is ~1.0-1.5),. Antibody-HRP conjugate is supplied in PBS, pH 7.4 containing 0.01% thimerosal as preservative. Do not add azide as it inhibits HRP activity. Store at 2-4oC for 2-4 weeks and at –20oC in suitable aliquots for long term storage. Do not store diluted (working solution) for more than a few hours.
Recommended dilution are 1:1000-1:10,000 for ELISA and 1:1000-1:2000 for Western.

Cat# GFP12-BTN, Biotin conjugate

Antibody was coupled to biotin (**Cat # GFP12-BTN**) using NHS-Biotin. Biotin to protein ration is 10-20 biotin per IgG molecule. It is supplied in PBS pH 7.4 containing 0.05% azide and 1% BSA in liquid or powder form (dissolve in 100 ul PBS). Store at 2-4oC for 2-4 weeks and at –20oC in suitable aliquots for long term storage. For western, use at 1:1K-1:10K and for ELISA 1:5K-1:50K. Do not store diluted (working solution).

Cat# GFP12-AP, AP-conjugate

The conjugate is provided as liquid in a stabilizing buffer (50 mM Tris-150 mM NaCl-1 mM MgCl2, pH 7.5, containing 1% bovine serum albumin, 0.05% sodium azide and 50% glycerol). The product should be **stored at 4°C** and is stable for a minimum of 1 year. Do not store diluted solutions.

Cat# GFP12-FITC, FITC conjugate

Antibody was coupled to FITC (**Cat # GFP12-FITC**). FITC to protein ration is 3-4 FITC per IgG molecule. It is supplied in PBS pH 7.4 containing 0.05% azide and 1% BSA in liquid or powder form (dissolve in 100 ul PBS). Store at 2-4oC for 2-4 weeks and at –20oC in suitable aliquots for long term storage. For immunofluorescence, use 1:100-1:1000. Do not store diluted (working solution).

Antibody concentration must be optimized for each application under defined experimental conditions.

Stability: 6-12 months at –20oC or below.

Specificity
Anti-GFP recognizes wild type, recombinant, and enhanced form of GFP (EGFP). Denatured-reduced forms of GFP-fusion proteins in immunoblotting, dot blot and ELISA. Purified recombinant GFP protein is available to optimize the antibody dilution and use as positive control (Cat #GFP15-R).

*This product is for In vitro research use only.

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