



Certificate of Analysis

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Anti-Native GFP Polyclonal Antibody (Lot 9-2007)

Catalog No.	Purification	Host:	Concentration	Purity
Bii-nGFPab3	Protein-A Purified	Rabbit	3.09 mg/ml	>99% by SDS-PAGE & HPLC

BACKGROUND: Green fluorescent protein (GFP), a 27 kDa protein derived from the jellyfish *Aequorea victoria*, 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 is used to measure single cell metastasis and successful proliferation of stem cells. In these ways, GFP technology has contributed to a greater understanding of cellular biology and biochemistry.

SPECIFICITY: Bii-nGFPab3 is a **Protein-A purified** polyclonal antibody raised in rabbits against highly-purified **native GFP** from *Aequorea victoria*. It is reactive with GFP and GFP fusion proteins from both native and recombinant sources. This anti-GFP recognizes all variants of *A. victoria* GFP induced in transformed organisms, including all vertebrate species tested.

IMMUNOGEN: Unique among anti-GFP antibody producers, we use highly purified **native GFP** from *Aequorea Victoria*. Because our immunogen is natural rather than recombinant, commercial application of our antibodies requires no license. Purified GFP, a 27 kDa monomer consisting of 238 amino acids, emits green light (emission maximum at 509 nm) when excited with blue or UV light. The Green Fluorescent Protein (GFP) from the jellyfish *Aequorea victoria* is used as a fluorescent indicator for monitoring gene expression in a variety of cellular systems, including living organisms and fixed tissues. Unlike other bioluminescent reporters, GFP fluoresces in the absence of substrates, cofactors, or other intrinsic or extrinsic proteins.

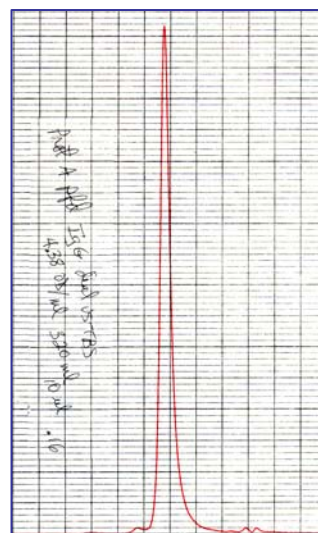
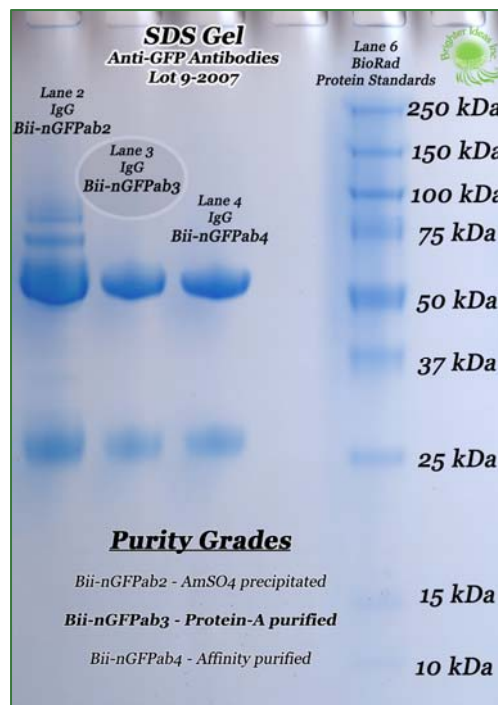
STORAGE: Maintain at -20°C in undiluted aliquots for up to 24 months after date of receipt. Avoid repeated freeze-thaw cycles.

APPLICATIONS: Immunoblotting: 1:1000-1:5000 dilution, using colorimetric detection (Peroxidase/TMB), with higher dilution possible using more sensitive detection methods.
ELISA: 1:2,000 – 1:10,000

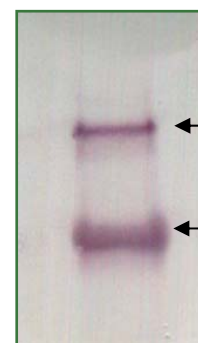
TITER: Bii-nGFPab3 titers to **1/10,000,000** using an alkaline phosphate and nitroblue tetrazolium assay.

BUFFER FORMULATION: Liquid in 10 mM Tris buffer pH 7.2, 0.01% sodium azide.

APPLICATION: For research, manufacturing, and diagnostic applications only.



Western Blot



Heavy Chain

Light Chain

HPLC Data Protein-A purified anti-GFP antibody

REFERENCES: Chalfie, M., Y. Tu, G. Euskirchen, W.W. Ward and D.C. Prasher. 1994. Green-fluorescent protein as a marker for gene expression. *Science* 263:802-805.