



Brighter Ideas, Inc.
76 Lipman Drive
New Brunswick, NJ 08901
732.932.9763 x225
Fax: 732.932.3633

www.brighterideasinc.com

Recombinant E-GFP (from *Aequoria victoria*)

Catalog No.	Purification	Host	Concentration	Purity
Bii-eGFP-25 (25mg - lot 4/1/03)	High resolution gel-filtration as final step	<i>E. coli</i>	31 mg/ml	>99%

BACKGROUND: Enhanced Green Fluorescent Protein (EGFP), 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 490 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.

PURITY: Purity confirmed by constant specific absorbance across chromatographic peaks, SEC-HPLC, SDS-PAGE, and A490/A280 ratios.

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

BUFFER FORMULATION: Sample prepared in 10mM Tris pH 8.0 plus 0.02% NaN₃

APPLICATION: For research applications only. Expression and purification service for *Aequoria* EGFP license holders only.

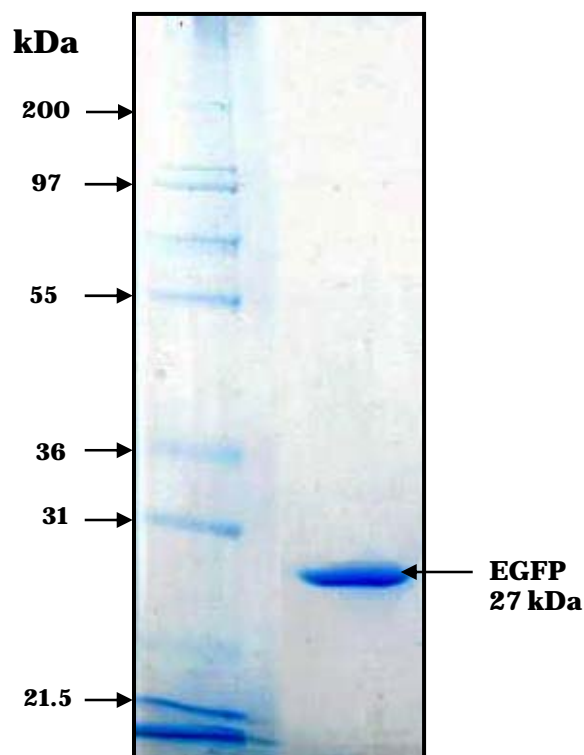
REFERENCES: Chalfie, M., Y. Tu, G. Euskirchen, W.W. Ward and D.C. Prasher. 1994. Green-fluorescent protein as a marker for gene expression. *Science* 263:802-805.

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Ward, W.W. Oct. 2005. Biochemical and Physical Properties of Green Fluorescent Proteins. In: *Green Fluorescent Protein: Properties, Applications, and Protocols*, 2nd Edition. M. Chalfie and S. Kain (eds.) Wiley-Interscience, Inc., pp 45-75.

SDS-PAGE EGFP



Absorbance Spectrum A490/A280 Ratio = 2.21

