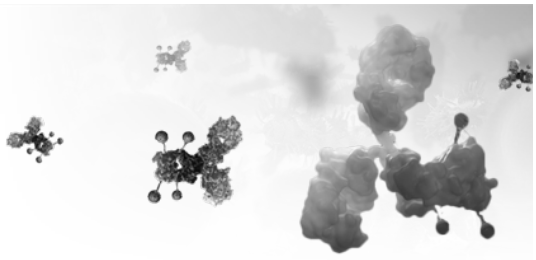

Recombinant A. victoria GFP (a.a. 1-238) (DAG1736)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Aequorea victoria GFP (P42212, 1 a.a.-238 a.a.) full-length recombinant protein expressed inEscherichia coli .
Species	A. victoria
Purity	Conventional Chromatography
Conjugate	Unconjugated
Applications	SDS-PAGE
Format	Liquid
Concentration	1 mg/ml
Buffer	In 20 mM Tris-HCl, pH 8.0 (10% glycerol)
Preservative	None
Storage	2-8°C short term, -20°C long term

BACKGROUND

Introduction	Function: Energy-transfer acceptor. Its role is to transduce the blue chemiluminescence of the protein aequorin into green fluorescent light by energy transfer. Fluoresces in vivo upon receiving energy from the Ca2+ -activated photoprotein aequorin. Subunit structure: Monomer. Tissue specificity: Photocytes. Post-translational modification: Contains a chromophore consisting of modified amino acid residues. The chromophore is formed by autocatalytic backbone condensation between Ser-65 and Gly-67, and oxidation of Tyr-66 to

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	didehydrotyrosine. Maturation of the chromophore requires nothing other than molecular oxygen. Biotechnological use: Green fluorescent protein has been engineered to produce a vast number of variously colored mutants, fusion proteins, and biosensors. Fluorescent proteins and its mutated allelic forms, blue, cyan and yellow have become a useful and ubiquitous tool for making chimeric proteins, where they function as a fluorescent protein tag. Typically they tolerate N- and C-terminal fusion to a broad variety of proteins. They have been expressed in most known cell types and are used as a noninvasive fluorescent marker in living cells and organisms. They enable a wide range of applications where they have functioned as a cell lineage tracer, reporter of gene expression, or as a measure of protein-protein interactions. Can also be used as a molecular thermometer, allowing accurate temperature measurements in fluids. The measurement process relies on the detection of the blinking of GFP using fluorescence correlation spectroscopy. Sequence similarities: Belongs to the GFP family. Biophysicochemical properties: Absorption: Abs(max)=395 nm Exhibits a smaller absorbance peak at 470 nm. The fluorescence emission spectrum peaks at 509 nm with a shoulder at 540 nm.
Keywords	GFP; Green fluorescent protein; yfp;

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