abcam

Product datasheet

Recombinant E. coli GFP protein (His tag) ab119740

4 References 1 Image

Description

Product name	Recombinant E. coli GFP protein (His tag)
Purity	> 80 % SDS-PAGE. The purity was determined to be 80% by densitometry
Expression system	Escherichia coli
Accession	B6UPG7
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Escherichia coli
Predicted molecular weight	39 kDa including tags
Amino acids	1 to 238
Tags	His tag N-Terminus
Description	Recombinant *E. coli* GFP protein (His tag)

Specifications

Our **Abpromise guarantee** covers the use of **ab119740** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Western blot SDS-PAGE
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 7.00 Preservative: 1.02% Imidazole Constituents: 0.002% PMSF, 0.71% Sodium phosphate, 0.005% DTT, 25% Glycerol (glycerin, glycerine), 1.75% Sodium chloride

General Info

Relevance

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 Ca^{2+} -activated photoprotein aequorin.

Subunit structure: Monomer.

Tissue specificity: Photocytes.

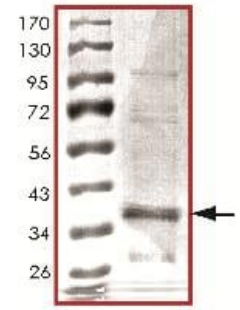
Post-translational modification: Contains a chromophore consisting of modified amino acid residues. The chromophore is formed by autocatalytic backbone condensation between Ser-65 and Gly-67, and oxidation of Tyr-66 to didehydrotyrosine. Maturation of the chromophore requires nothing other than molecular 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.

Images



SDS-PAGE - Recombinant *E. coli* GFP protein (His tag) (ab119740)

The purity of ab119740 was determined to be >80% by densitometry.

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