

Yellow Fluorescent Protein

Cat. No. YFP-101 Lot. No. (See product label)

SPECIFICATION

Product Overview

Fluorescent protein ideal for subcellular labeling/visualization.

The recombinant YFP (Yellow Fluorescent Protein) is expressed and purified from transformed E. coli using a method that ensures high purity and maximal YFP fluorescence. Endotoxin has been removed, so the protein is suitable for in vivo injection or cell culture applications. The protein is a 26.4 kDa monomer with 238 amino acids, Ex./Em. = 525/538 nm, extinction coefficient 27390.

Source

E.coli

Description

Yellow fluorescent protein (YFP) is a genetic mutant of green fluorescent protein (GFP) originally derived from the jellyfish *Aequorea victoria*. Its excitation peak is 514 nm and its emission peak is 527 nm. Like the parent GFP, YFP is a useful tool in cell and molecular biology thanks to its properties useful for fluorescence microscopy. Three improved versions of YFP are Citrine, Venus, and Ypet. They have reduced chloride sensitivity, faster maturation, and increased brightness (defined as the product of the extinction coefficient and quantum yield). Typically, YFP serves as the acceptor for genetically-encoded FRET sensors of which the most likely donor FP is monomeric cyan fluorescent protein (mCFP). The red-shift relative to GFP is caused by a Pi-Pi stacking interaction as a result of the T203Y substitution introduced by mutation, which essentially increases the polarizability of the local chromophore environment as well as providing additional electron density into the chromophore.

Form

Lyophilized protein

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Molecular Mass	26.4 kDa
Endotoxin	<0.1 ng/μg
Purity	≥97%.
Usage	For Research Use Only! Not to be used in humans.
Storage	At -20 centigrade.
Reconstitution	Reconstitute with dH2O to 1 mg/mL.
Handling	Centrifuge the vial prior to opening.
GENE INFORMATION	
Synonyms	YFP; Yellow Fluorescent Protein

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