

Allgemeine Informationen

Katalog-Nr.: CL647-66002	GenBank-Zugangsnummer: U73901	Reinigungsmethode: Protein-A-Reinigung
Größe: 100ul, Konzentration: 1000 µg/ml von Nanodrop;	GeneID (NCBI): Vollständiger Name:	CloneNo.: 1E10H7
Wirt: Maus	Berechnete Masse: 26 kDa	Anregungs-/Emissionsmaxima- Wellenlängen: 654 nm / 674 nm
Isotyp: IgG2a		
Immunogen Katalognummer: AG2128		

Anwendungen

Geprüfte Anwendungen:
FC (Intra)

Getestete Reaktivität:
Rekombinantes Protein

Hintergrundinformationen

Green fluorescence protein (GFP) is a protein composed of 238 amino acid residues (26.9kDa) derived from the jellyfish *Aequorea Victoria* which emits green light (emission peak at 509nm) when excited by blue light (excitation peak at 395nm). GFP, when exposed to light in the blue to ultraviolet spectrum, will show a bright green fluorescent light, making it a very useful tool in research. What is the molecular weight of GFP? 26.9 kDa How does GFP work? GFP was first isolated from the jellyfish *Aequorea Victoria*, a source of bioluminescence, in the 1960s and in 2008 the Nobel Prize in Chemistry was awarded "for the discovery and development of the green fluorescent protein, GFP" to Osamu Shimomura and colleagues, who recognized its potential in research (PMID: 13911999). A short amino acid sequence within the protein acts as the chromophore, which absorbs UV light at 395 nm and emits green light at 509 nm. Why is GFP a useful reporter? When GFP was sequenced in 1992 (PMID: 1347277) it allowed scientists to express it in other organisms using transgenic techniques. It does not require cofactors to work, is non-toxic to live cells, and is relatively small, making it ideal as a "tag" for other proteins, identifiable by shining a UV light and observing the green fluorescence. The tertiary folded structure of GFP forms a chromophore at the center of a barrel shape, which protects the fluorescence-emitting amino acid chain from solvents, meaning it can function in many environments (PMID 9759496). What are the applications for GFP? When expressed attached to another protein, GFP can be used as a reporter gene to measure expression levels or can easily be used in fluorescence microscopy. It has been used to highlight proteins in a variety of model organisms, including bacteria, zebrafish, and mice.

Lagerung

Lagerungsbedingungen:
Bei -20°C lagern. Vor Licht schützen. Nach dem Versand ein Jahr stabil.

Lagerungspuffer:
BS mit 50% Glycerin, 0,05% Proclin300, 0,5% BSA, pH 7,3.

Aliquotieren ist nicht notwendig bei -20°C Lagerung

*** 20ul-Größen enthalten 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Ausgewählte Validierungsdaten



1X10⁶ Transfected HEK-293 cells were intracellularly stained with 0.2 ug Coralite® Plus 647 Anti-N/A GFP tag (CL647-66002, Clone:1E10H7) (red), or 0.2 ug APC Mouse IgG2b Isotype Control (APC-65128, Clone: MPC-11) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).