

Mouse anti GFP-Tag Monoclonal Antibody



CABE012

Product Information

Size:

100 uL

Observed MW:

Refer to Figures

Calculated MW:

27kDa

Applications:

WB IF IP

Reactivity:

Protein Background

The green fluorescent protein (GFP) is a protein composed of 238 amino acid residues (26.9 kDa) that exhibits bright green fluorescence when exposed to light in the blue to ultraviolet range. Although many other marine organisms have similar green fluorescent proteins, GFP traditionally refers to the protein first isolated from the jellyfish *Aequorea victoria*. The GFP from *A. victoria* has a major excitation peak at a wavelength of 395 nm and a minor one at 475 nm. Its emission peak is at 509 nm, which is in the lower green portion of the visible spectrum. The fluorescence quantum yield (QY) of GFP is 0.79. The GFP from the sea pansy (*Renilla reniformis*) has a single major excitation peak at 498 nm. GFP makes for an excellent tool in many forms of biology due to its ability to form internal chromophore without requiring any accessory cofactors, gene products, or enzymes / substrates other than molecular oxygen. In cell and molecular biology, the GFP gene is frequently used as a reporter of expression. It has been used in modified forms to make biosensors, and many animals have been created that express GFP, which demonstrates a proof of concept that a gene can be expressed throughout a given organism, in selected organs, or in cells of interest. GFP can be introduced into animals or other species through transgenic techniques, and maintained in their genome and that of their offspring. To date, GFP has been expressed in many species, including bacteria, yeasts, fungi, fish and mammals, including in human cells. Scientists Roger Y. Tsien, Osamu Shimomura, and Martin Chalfie were awarded the 2008 Nobel Prize in Chemistry on 10 October 2008 for their discovery and development of the green fluorescent protein.

Antibody Information

Recommended dilutions:

WB 1:2000 - 1:5000 IF 1:50
- 1:100 IP 1:50 - 1:100

Source:

Mouse

Isotype:

IgG

Purification:

Affinity purification

Immunogen information

Gene ID:

Uniprot

Synonyms:

GFP; GFP tag; GFP-tag

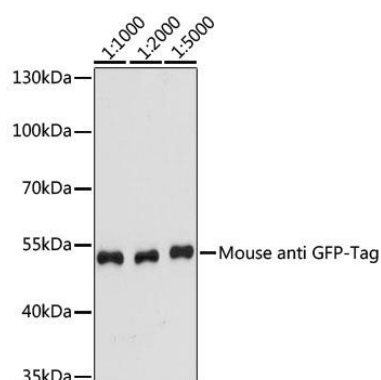
Immunogen:

A synthetic peptide corresponding to a sequence within amino acids 1-100 to the N-terminus of GFP protein.

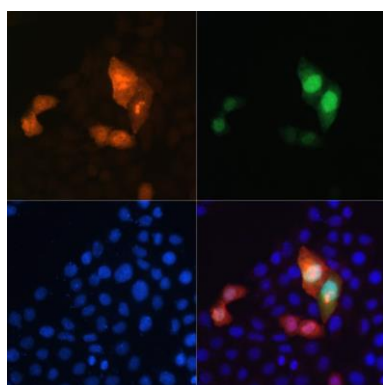
Storage:

Store at -20°C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

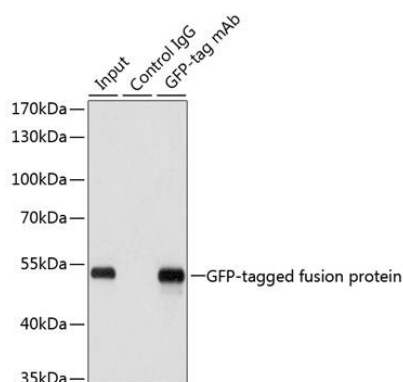
Product Images



Western blot analysis of over-expressed GFP fusion protein in 293T cell using GFP-Tag antibody (CABE012) at different dilution. Each lane was loaded with 2 ug cell lysate. Secondary antibody: HRP Goat Anti-Mouse IgG (H+L) (CABS003) at 1:10000 dilution. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (CABM00020). Exposure time: 5s.



Immunofluorescence analysis of GFP transgenic HeLa cells using GFP-Tag antibody (CABE012). Green: GFP expression. Blue: DAPI for nuclear staining.



Immunoprecipitation of over-expressed GFP-tagged protein in 293T cells incubated using GFP-tag antibody (CABE012). A mock served as negative control and over-expressed 293T cell lysate served as positive control.