

Rabbit anti GFP-Tag mAb

Catalog No.: AE100

Basic Information

Observed MW

Refer to figures

Calculated MW

Category

Tag antibody

Applications

WB,IP,ELISA

Cross-Reactivity

Species independent

CloneNo number

ARC50813

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.

Recommended Dilutions

WB 1:2000 - 1:6000

IP 0.5µg-4µg antibody for
200µg-400µg extracts of
whole cells

ELISA Recommended starting
concentration is 1 µg/mL.
Please optimize the
concentration based on
your specific assay
requirements.

Contact

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Immunogen Information

Gene ID

Swiss Prot

P42212

Immunogen

Recombinant protein (or fragment). This information is considered to be commercially sensitive.

Synonyms

GFP;GFP tag;GFP-tag

Product Information

Source

Rabbit

Isotype

IgG

Purification

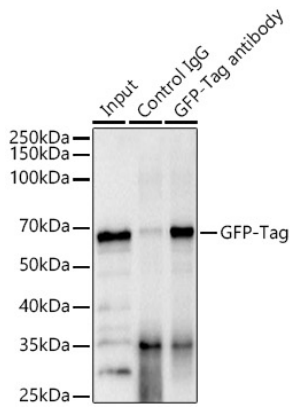
Affinity purification

Storage

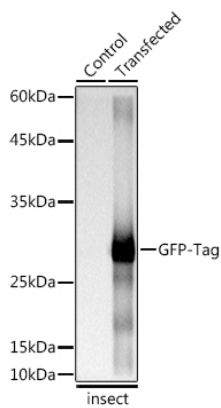
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.09% sodium azide,0.05% BSA,50% glycerol,pH7.3.

Validation Data



Immunoprecipitation analysis of 300 µg extracts of 293T-SCRN1-HA-GFP cells using 3 µg GFP-Tag antibody (AE100). Western blot was performed from the immunoprecipitate using GFP-Tag antibody (AE100) at a dilution of 1:10000.



Western blot analysis of extracts of normal Eukaryotic expression of GFP and Eukaryotic expression of GFP transfected with GFP Protein, using Rabbit anti GFP-Tag mAb (AE100) at 1:5000 dilution. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 0.4s.