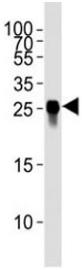
GFP Antibody / YFP [clone 168AT1211] (F52058)

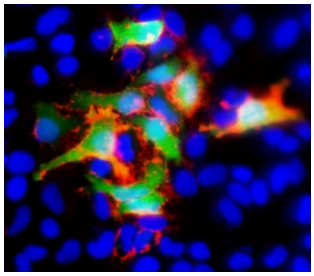
Catalog No.	Formulation	Size
F52058-0.2ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.2 ml
F52058-0.05ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.05 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	GFP / YFP
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	168AT1211
Purity	Purified
Applications	Western blot: 1:4000 Immunofluorescence/Immunocytochemistry: 1:25
Limitations	This GFP antibody is available for research use only.



Western blot analysis of tagged protein lysate using GFP antibody at 1:4000.



IF/ICC staining of GFP-transfected FFPE human HeLa cells with GFP antibody (red), DAPI nuclear stain (blue) and green natural fluorescence. HIER: steam section in pH6 citrate buffer for 20 min.

Description

GFP antibody is a widely used reagent for detecting expression of green fluorescent protein in diverse biological systems. Green fluorescent protein (GFP) is a naturally occurring protein originally isolated from the jellyfish Aequorea victoria. Its ability to fluoresce without requiring cofactors has made GFP one of the most important tools in molecular and cellular biology. By fusing GFP to proteins of interest, researchers can monitor localization, dynamics, and interactions in living cells.

GFP has been engineered into numerous variants with altered excitation and emission spectra, enabling multi-color imaging and advanced microscopy applications. These derivatives, such as EGFP and superfolder GFP, improve brightness, folding efficiency, and stability, making them ideal for experimental design. Despite advances in fluorescent proteins, the original GFP remains the foundation for many constructs and reporter systems.

The GFP antibody is particularly valuable for detecting GFP fusion proteins in fixed cells and tissues or in western blotting. Antibody based detection overcomes challenges of weak fluorescence, photobleaching, or interference with protein folding. This allows researchers to confirm GFP fusion expression even when fluorescence is not detectable. Immunohistochemistry and immunofluorescence with GFP antibody provide higher sensitivity and versatility compared to relying on intrinsic fluorescence alone.

At the molecular level, GFP consists of 238 amino acids and forms a beta barrel structure surrounding a chromophore formed by cyclization of internal residues. This self-contained chromophore is stable and resistant to environmental changes, contributing to GFPÃ¢Â€Â™s utility as a reporter protein. Variants of GFP have been optimized for mammalian expression, photostability, and reduced cytotoxicity, broadening its applications across disciplines.

The GFP antibody is applied across cell biology, developmental biology, neuroscience, and immunology. It is used to detect tagged proteins in western blotting, immunohistochemistry, immunofluorescence, and flow cytometry. For researchers studying protein localization, gene expression, or signal transduction, the GFP antibody provides a sensitive and specific detection tool. NSJ Bioreagents supplies validated antibodies that ensure accuracy and reproducibility in advanced molecular studies.

Application Notes

Titration of the GFP antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Purified His-tagged protein was used to produced this monoclonal YFP / GFP antibody.

Storage

Aliquot the GFP antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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