GFP Antibody

Monoclonal Mouse IgG_1 Clone # 454505

Catalog Number: MAB42401

DESCRIPTION

Specificity	Detects recombinant GFPuv and eGFP in Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 454505
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant GFPuv Ser2-Lys238 Accession # P42212
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

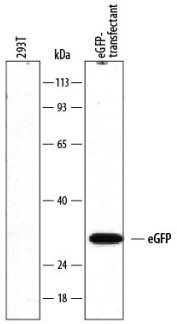
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Immunoprecipitation	2 µg/100 µg cell lysate	293T human embryonic kidney cell line transfected with eGFP
Intracellular Staining by Flow Cytometry	0.25 µg/10^6 cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

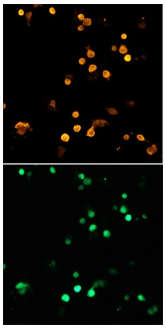
DATA

Western Blot



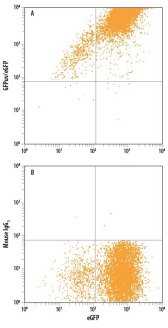
Detection of eGFP by Western Blot. Western blot shows lysates of 293T human embryonic kidney cell line either mock transfected or transfected with eGFP. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-GFPuv/eGFP Monoclonal Antibody (Catalog # MAB42401) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for eGFP at approximately 29 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



GFP was detected in 2% paraformaldehyde immersion fixed HEK293 human embryonic kidney cell line transfected with GFP-expressing protein using Mouse Anti-GFP Monoclonal Antibody (Catalog # MAB42401) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007). Lower panel shows transfected cells by GFPuv auto-fluorescence (green). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Intracellular Staining by Flow Cytometry



Detection of eGFP in HEK293 Human Cell Line Transfected with eGFP by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with eGFP was stained with and either (A) Mouse Anti-GFP Monoclonal Antibody (Catalog # MAB42401) or (B) Mouse IgG_1 Isotype Control (Catalog # MAB002) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

GFP Antibody

Monoclonal Mouse IgG_1 Clone # 454505

Catalog Number: MAB42401

BACKGROUND

Green fluorescent protein (GFP) is a 27 kDa protein originally isolated from the jellyfish *Aequorea victoria*. In the presence of UV light (490-520 nm), it emits a green fluorescent color that can be used to pinpoint locations of various intracellular proteins. GFP is 238 amino acids (aa) in length. It is a globular monomer that has a tendency to dimerize. The monomer has the shape of a β-barrel with a chromophore (aa 65-67) containing α-helix running up its center. GFPuv is the *Aequorea* sequence with three aa substitutions; Phe to Ser at # 99, Met to Thr at # 153, and Val to Ala at # 163. This form expresses faster and is 18-fold brighter than native GFP; excitation peaks at 395 nm and emission at 508 nm.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449