Anti-GFP antibody, mouse monoclonal (S2H12)

Product code	60-005
Size	100 µg
Storage	-20℃
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium
Immunogen	Purified recombinant His tag (C terminal)-eGFP (full length).
Isotype	mouse IgG1κ
Reactivity	eGFP, GFP
Special notes	Specificity has been validated by Immunofluorescence staining with mitochondria-specific fluorescent dye (Fig. 2)
Application	1. Western blotting (dilution: 1/1000) Fig.1 2. Immunofluorescence staining (dilution: 1/200-1/2000) Fig. 2
Background	Green fluorescent protein has been engineered to produce a vast number of variously colored mutants, fusion proteins, and biosensors. Green fluorescent protein can be mutated to emit at different wavelengths such as blue for BFP (when Tyr-66 is replaced by His), cyan for CFP (when Tyr-66 is replaced by Trp), and yellow for YFP (when Thr-203 is replaced by Tyr). Further generation of mutants led to more stable proteins (at 37 degrees Celsius for example) with brighter fluorescence and longer fluorescence lifetimes. Fluorescent proteins and their mutated allelic forms have become a useful and ubiquitous tool for making chimeric proteins, where they function as a fluorescent protein tag. Typically they tolerate N- and C-terminal fusion to a broad variety of proteins. They have been expressed in most known cell types and are used as a noninvasive fluorescent marker in living cells and organisms. They enable a wide range of applications where they have functioned as a cell lineage tracer, reporter of gene expression, or as a measure of protein-protein interactions (PubMed:17685514, PubMed:17685554, PubMed:8578587, PubMed:8707053, PubMed:9145105, PubMed:9154981, PubMed:9759496, PubMed:9782051).
Data Link	UniProt P42212 (GFP_AEQVI)

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Data Images: 60-003 Anti-eGFP antibody, mouse monoclonal (S2H12)

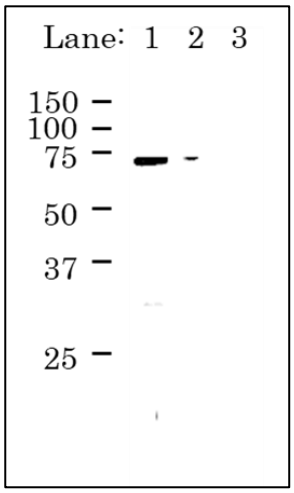

Fig 1. Western blotting with anti-GFP antibody (S2H12)

5 µg and 1 µg of whole cell lysates of GFP-expression Sf9 cells (Lane 1,2) and 5 µg of whole cell lysate of wild-type Sf9 cells (Lane 3) were electrophoresed in a 12 % PAAG and transferred to a PVDF membrane with a wet blotter. This filter was masked with 5% skim milk and 1 µg/ml anti-eGFP antibody (S2H12), 0.2 µg/ml anti-mIgG-H+L-HRP (ab205719) and Immunostar zeta.

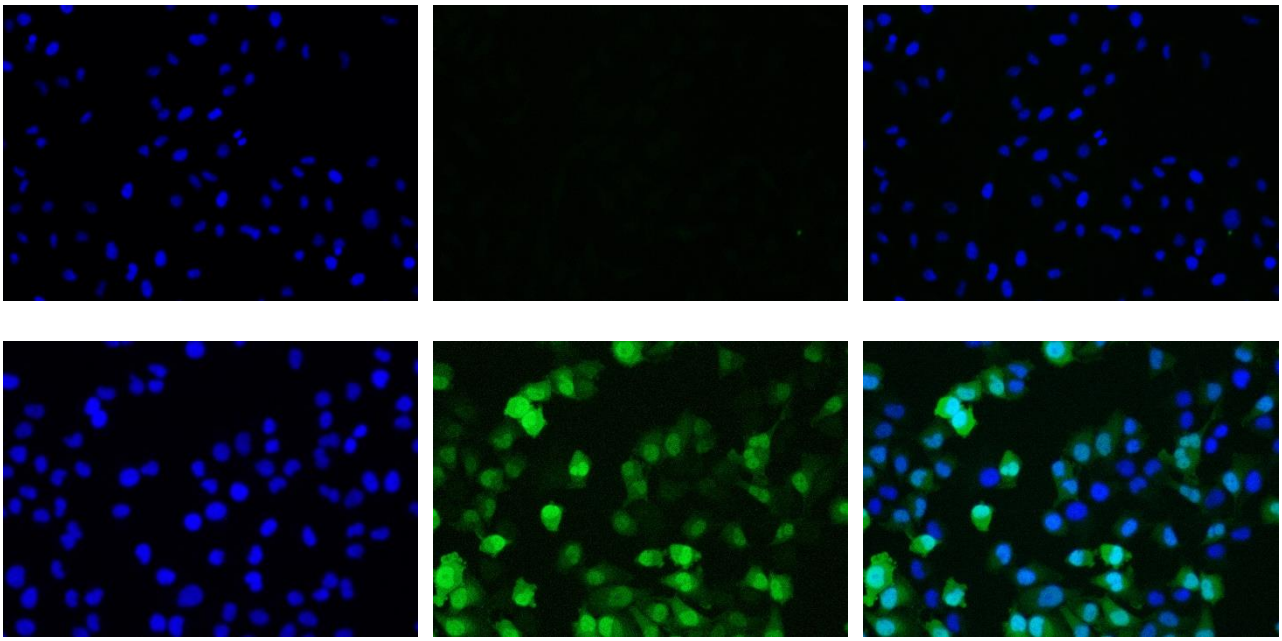

Fig 2. Immunofluorescence staining with anti-GFP antibody (S2H12)

Wild-type (upper images) and GFP-expression (lower images) HeLa cells were fixed by 4% PFA. Anti-eGFP antibody (S2H12) was reacted at 1/200 dilution as primary antibody and anti-IgG (HL) Alexa 488 conjugate was reacted at 1/1000 dilution as secondary antibody (green). Nuclei were stained by DAPI (blue). Magnification: x200.

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