Mouse Monoclonal Antibody to Aequorea victoria GFP

Catalog Number: **13105-MM05**

General Information	
Immunogen:	Recombinant Aequorea victoria GFP protein (Catalog#13105-S07E)
Clone ID:	05
Ig Type:	Mouse IgG1
Applications:	ELISA, IP, ICC/IF, IF
Specificity:	Aequorea victoria GFP
Formulation:	0.2 μm filtered solution in PBS，pH7.4
Storage:	＜ -20° C

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Aequorea victoria GFP (Catalog#13105-S07E; AAB65663; Ser 2-Lys 238). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.

Storage

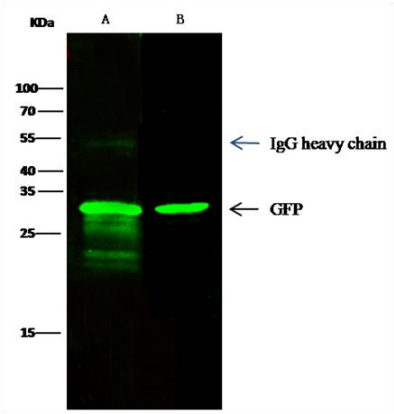
This antibody can be stored at 2℃-8℃ for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20℃ to -80℃. **Preservative-Free.**
Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. **Avoid repeated freeze-thaw cycles.**

Applications

ELISA – This antibody can be used at 0.5-1 μg/mL with the appropriate secondary reagents to detect Aequorea victoria GFP. The detection limit for Aequorea victoria GFP is approximately 0.16 ng/well.

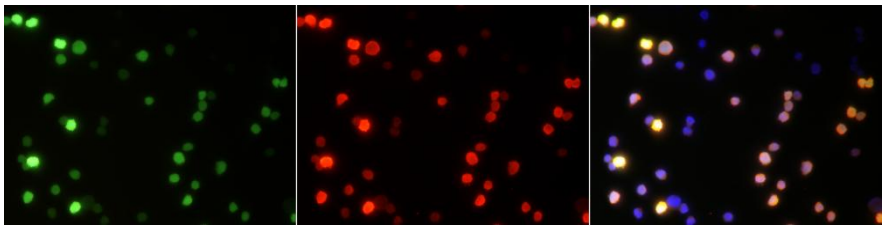
Immunoprecipitation –

IP: 1-4 μg/mg of lysate



Items \ Lanes	A	B
Sample	GFP transfected E.coil lysate	GFP transfected 293 Cells lysate
Sample quantity	0.5 mg	
IP antibody quantity	2 μg	
Protein G agarose	15 μl of 50% Protein G Agarose	
Gel	13% SDS-PAGE reducing gel	
Primary antibody	GFP antibody at 10 μg/ml [Cat# 13105-R028]	
Secondary antibody	Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution.	

ICC/IF: 10-25 μg/mL



Immunofluorescence staining of GFP protein in CHO cells, transfected with GFP. Cells (left: GFP, middle: antibody, right: merge) were fixed with 4% PFA, blocked with 10% serum, and incubated with Mouse anti-GFP monoclonal antibody (15 μg/ml) at 37℃ 1 hour. Then cells were stained with the Alexa Fluor® 594-conjugated Goat Anti-mouse IgG secondary antibody (red) and counterstained with DAPI (blue).

Specificity

Aequorea victoria GFP

No cross-reactivity in ELISA with E.coli cell lysate

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Background

The green fluorescent protein (GFP) is a protein that exhibit bright green fluorescence when exposed to blue light. The protein is in the shape of a cylinder, comprising 11 strands of beta-sheet with an alpha-helix inside and short helical segments on the ends of the cylinder. Inward-facing sidechains of the barrel induce specific cyclization reactions in the tripeptide Ser65-Tyr66-Gly67 that lead to chromophore formation. Its amazing ability to generate a highly visible, efficiently emitting internal fluorophore is both intrinsically fascinating and tremendously valuable. The green-fluorescent protein (GFP) of the jellyfish Aequorea victoria has always been used as a universal reporter in a broad range of heterologous living cells and organisms. GFP has become well established as a marker of gene expression and protein targeting in intact cells and organisms.

Reference

1. Nagai, M. et al., 1985, Gene. 36:183-188.
2. Jacobs, P. et al., 1985, DNA. 4:139-146.
3. Geiger, M. et al., 1989, Blood. 74 (2): 722-728.
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5. Duffy, M.J., 2002, Biochem. Soc. Trans. 30: 207-210.
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