Bio Academia
Manufacturer

AS ONE

Anti-GFP antibody, rabbit serum

60-011 100 µl

The green fluorescent protein (GFP) is composed of 238 amino acids (26.9 kDa), originally isolated from the jellyfish *Aequorea victoria* that fluoresces green when exposed to blue light (1). In cell and molecular biology, the GFP fused gene is frequently used as a reporter of expression and protein localization (2, 3).

Applications

1. Western blot 1/2,000 dilution
2. Immunoprecipitation (assay dependent)
3. Immunohistochemistry 1/4,000 dilution
4. Immunofluorescence 1/4,000 dilution

Other applications were not tested

Specification

Immunogen: Recombinant His-tagged EGFP
Reactive to all variants of Aequorea victoria GFP such as S65T-GFP, RS-GFP, YFP, EGFP, and their-fusion proteins
Form: Antiserum with 0.05% sodium azide
Storage**:** Shipped at 4°C or -20°C. Upon arrival, aliquot and store at -20°C

Data Link

Swiss-Prot **P42212** (GFP_AEQVI)

References

1. Shimomura O *et al* (1962) "Extraction, purification and properties of aequorin, a bioluminescent protein from the luminous hydromedusan, Aequorea." *J Cell Comp Physiol* 59: 223–239 PMID: 13911999
2. Chalfie M *et al* (1994) "Green fluorescent protein as a marker for gene expression." *Science* 263 (5148): 802–805 PMID: 8303295
3. Tsien R (1998) "The green fluorescent protein." (PDF) *Annu Rev Biochem* 67: 509–544 PMID: 9759496

Fig.1

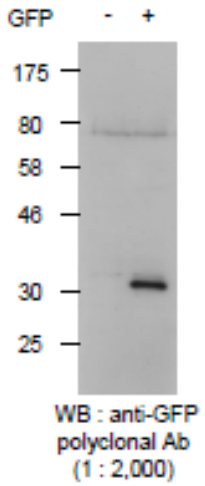

Fig. 1 Detection of GFP protein with this antibody by Western blot.
-: Lysate of 293T cells transfected with an empty vector
+: Lysate of 293T cells transfected with the plasmid carrying the GFP gene

Fig. 2

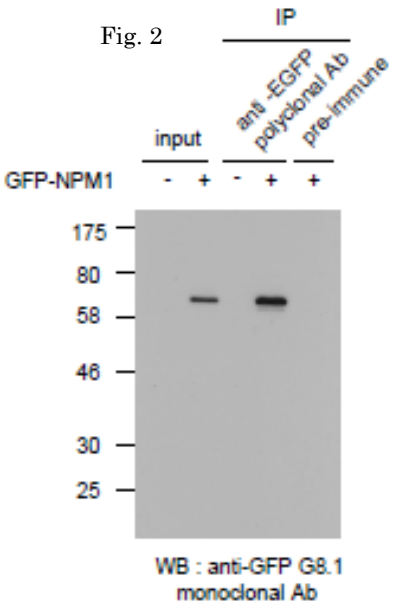

Fig. 2 Immunoprecipitation of GFP-tagged protein with this antibody followed by Western blot.

-: Lysate of 293T cells transfected with an empty vector

+: Lysate of 293T cells transfected with the plasmid carrying the GFP-tagged NPM1 gene

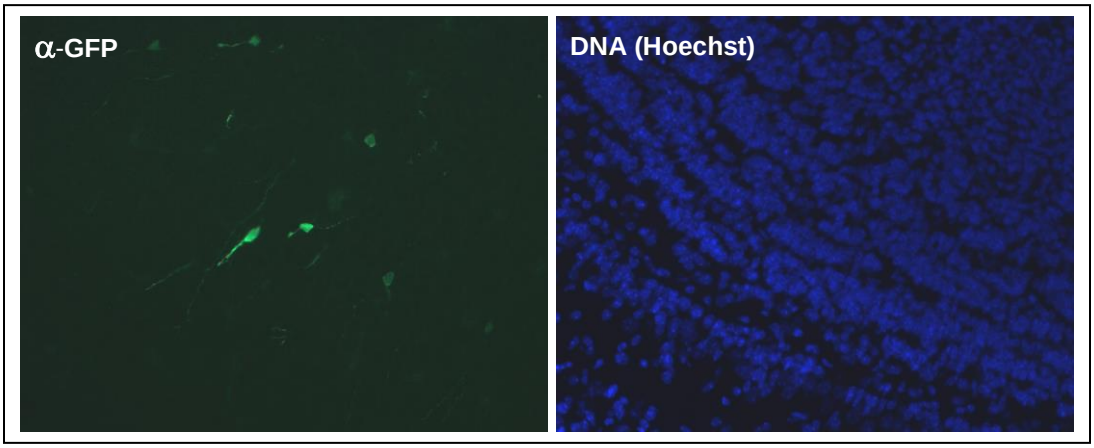

Fig. 3 Immunohistochemistry of GFP protein

Mouse brain tissues were infected with a GFP-expressing lentivirus at postnatal day 0, cut into blocks containing the olfactory bulb at postnatal day 8, fixed with 4% paraformaldehyde solution in 100 mM phosphate buffer (pH 7.4) overnight, and cryoprotected by immersion in 20% sucrose at 4°C overnight. Frozen 12 μm-thick tissue sections were treated with 3% BSA/0.1% Triton X-100 in PBS at room temperature for 1 hr, incubated with anti-GFP antibody (1:4000; BioAcademia) at 4°C overnight, and treated with Alexa 488-conjugated rabbit IgG (1:1000; Invitrogen) at room temperature for 1 hr. Chromosomal DNA was detected with 3.3 μM Hoechst 33342 (Sigma-Aldrich). The images were observed with a fluorescence microscope. (The images are by courtesy of Prof. K. Yoshikawa at Osaka University)