

GFP (1A5): sc-101536

BACKGROUND

The green fluorescent protein (GFP) was originally identified as a protein involved in the bioluminescence of the jellyfish *Aequorea victoria*. GFP cDNA produces a fluorescent product when expressed in prokaryotic cells, without the need for exogenous substrates or cofactors, making GFP a useful tool for monitoring gene expression and protein localization *in vivo*. Several GFP mutants have been developed, including EGFP, which fluoresce more intensely than the wildtype GFP and have shifted excitation maxima, making them useful for FACS and fluorescence microscopy as well as double-labeling applications. GFP is widely used in expression vectors as a fusion protein tag, allowing expression and monitoring of heterologous proteins fused to GFP.

REFERENCES

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2. Chalfie, M., et al. 1994. Green fluorescent protein as a marker for gene expression. *Science* 263: 802-805.
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4. Cormack, B.P., et al. 1996. FACS-optimized mutants of the green fluorescent protein (GFP). *Gene* 173: 33-38.
5. Rizzuto, R., et al. 1996. Double labelling of the subcellular structures with organelle-targeted GFP mutants *in vivo*. *Curr. Biol.* 6: 183-188.
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SOURCE

GFP (1A5) is a rat monoclonal antibody raised against recombinant GFP.

PRODUCT

Each vial contains 200 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GFP (1A5) is recommended for detection of GFP and GFP fusion proteins by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of GFP: 27 kDa.

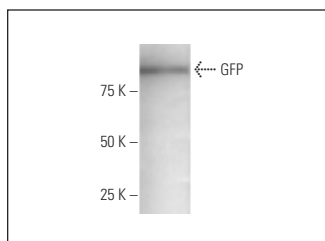
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

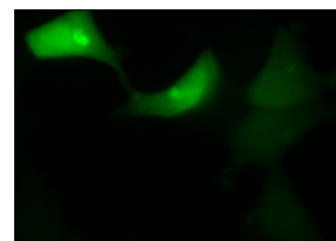
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



GFP (1A5): sc-101536. Western blot analysis of GFP expression in 293T cell lysate.



GFP (1A5): sc-101536. Immunofluorescence staining of COS cells.

SELECT PRODUCT CITATIONS

1. Zhang, Q., et al. 2009. Autophagy-mediated chemosensitization in cancer cells by fullerene C60 nanocrystal. *Autophagy* 5: 1107-1117.
2. Bray, K., et al. 2011. The Rho GTPase Cdc42 is required for primary mammary epithelial cell morphogenesis *in vitro*. *Small GTPases* 2: 247-242.
3. Zisoulis, D.G., et al. 2012. Autoregulation of microRNA biogenesis by let-7 and Argonaute. *Nature* 486: 541-544.
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PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.