SANTA CRUZ BIOTECHNOLOGY, INC.

GFP (FL): sc-8334

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

1. Prasher, D.C., et al. 1992. Primary structure of the *Aequorea victoria* green-fluorescent protein. Gene 111: 229-233.
2. Chalfie, M., et al. 1994. Green fluorescent protein as a marker for gene expression. Science 263: 802-805.
3. Inouye, S. and Tsuji, F.I. 1994. Aequorea green fluorescent protein. Expression of the gene and fluorescence characteristics of the recombinant protein. FEBS Lett. 341: 277-280.
4. Cormack, B.P., Valdivia, R.H. and Falkow, S. 1996. FACS-opitmized mutants of the green fluorescent protein (GFP). Gene 173: 33-38.

SOURCE

GFP (FL) is a rabbit polyclonal antibody raised against amino acids 1-238 representing full length GFP of *Aequorea victoria* origin.

PRODUCT

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

Available as agarose conjugate for immunoprecipitation, sc-8334 AC, 500 µg/0.25 ml agarose in 1 ml.

Available as HRP conjugate for Western blotting, sc-8334 HRP, 200 µg/1 ml.

Available as biotin conjugate, sc-8334 B, 200 µg/1 ml.

APPLICATIONS

GFP (FL) is recommended for detection of GFP and GFP mutant fusion proteins by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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.

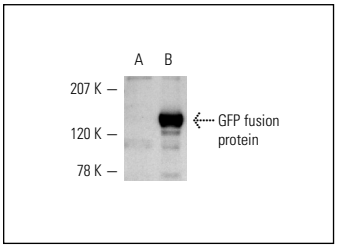
STORAGE

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

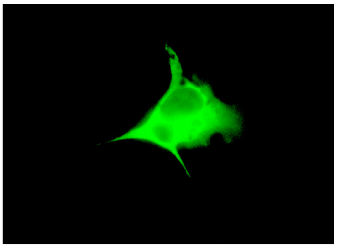
RESEARCH USE

For research use only, not for use in diagnostic procedures

DATA



GFP (FL): sc-8334. Western blot analysis of GFP fusion protein expression in untransfected COS cells (**A**) and COS cells transfected with pCruz GFP-Lac Z: sc-5046 (**B**).



GFP (FL): sc-8334. Fluorescence staining of methanol-fixed COS cells transfected with pCruz GFP-Lac Z: sc-5046, showing GFP-Lac Z localization in the cytoplasm.

SELECT PRODUCT CITATIONS

1. Rey, O., et al. 2001. Regulated nucleocytoplasmic transport of protein kinase D in response to G protein-coupled receptor activation. J. Biol. Chem. 276: 49228-49235.
2. Zong, M., et al. 2011. The adaptor function of TRAPPC2 in mammalian TRAPPs explains TRAPPC2-associated SEDT and TRAPPC9-associated congenital intellectual disability. PLoS One 6: e23350.
3. Padmanabhan, R.A., et al. 2011. CrkL is a co-activator of estrogen receptor α that enhances tumorigenic potential in cancer. Mol. Endocrinol. 25: 1499-1512.
4. Dissanayake, K., et al. 2011. ERK/p90RSK/14-3-3 signalling has an impact on expression of PEA3 Ets transcription factors via the transcriptional repressor capicúa. Biochem. J. 433: 515-525.
5. Wang, C., et al. 2012. The Nedd4-like ubiquitin E3 ligases target angiomotin/p130 to ubiquitin-dependent degradation. Biochem. J. 444: 279-289.
6. Holeiter, G., et al. 2012. The RhoGAP protein Deleted in Liver Cancer 3 (DLC3) is essential for adherens junctions integrity. Oncogenesis 1:e13.
7. Moulédous, L., et al. 2012. GRK2 protein-mediated transphosphorylation contributes to loss of function of μ-opioid receptors induced by neuropeptide FF (NPFF2) receptors. J. Biol. Chem. 287: 12736-12749.
8. Lei, K., et al. 2012. Inner nuclear envelope proteins SUN1 and SUN2 play a prominent role in the DNA damage response. Curr. Biol. 22: 1609-1615.
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11. Vatine, G.D., et al. 2013. Zebrafish as a model for monocarboxyl transporter 8-deficiency. J. Biol. Chem. 288: 169-180.