SANTA CRUZ BIOTECHNOLOGY, INC.

GFP (T-19): sc-5384

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.

SOURCE

GFP (T-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of 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.

Blocking peptide available for competition studies, sc-5384 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-5384 AC, 500 µg/0.25 ml agarose in 1 ml.

Available as HRP conjugate for Western blotting, sc-5384 HRP, 200 µg/1 ml.

APPLICATIONS

GFP (T-19) is recommended for detection of GFP and GFP mutant fusion proteins of N/A origin 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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

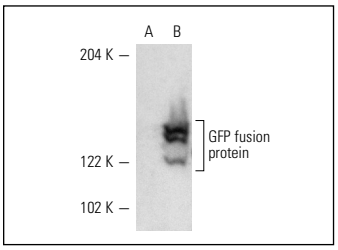
STORAGE

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 (T-19): sc-5384. Western blot analysis of GFP fusion protein expression in COS (**A**) and GFP transfected COS (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Milsom, M.D., et al. 2004. Enhanced *in vivo* selection of bone marrow cells by retroviral-mediated coexpression of mutant O6-methylguanine-DNA-methyltransferase and HoxB4. Mol. Ther. 10: 862-873.
2. Ozalp, C., et al. 2005. Bimolecular fluorescence complementation analysis of cytochrome p450 2c2, 2e1, and NADPH-cytochrome p450 reductase molecular interactions in living cells. Drug Metab. Dispos. 33: 1382-1390.
3. Southgate, T.D., et al. 2006. Radioprotective gene therapy through retroviral expression of manganese superoxide dismutase. J. Gene Med. 8: 557-565.
4. Albert, J.T., et al. 2007. Voltage-sensitive prestin orthologue expressed in zebrafish hair cells. J. Physiol. 580: 451-461.
5. van Rooijen, E., et al. 2008. LRRC50, a conserved ciliary protein implicated in polycystic kidney disease. J. Am. Soc. Nephrol. 19: 1128-1138.
6. Yuan, P., et al. 2009. Eset partners with Oct4 to restrict extraembryonic trophoblast lineage potential in embryonic stem cells. Genes Dev. 23: 2507-2520.
7. Semaan, S.J., et al. 2010. The apoptotic response in HCT116BAX$^{-/-}$ cancer cells becomes rapidly saturated with increasing expression of a GFP-BAX fusion protein. BMC Cancer 10: 554.
8. Laurent, V., et al. 2010. Highly efficient gene transfer into hepatocyte-like HepaRG cells: new means for drug metabolism and toxicity studies. Biotechnol. J. 5: 314-320.
9. Russell, B., et al. 2011. Chromosome breakage is regulated by the interaction of the BLM helicase and topoisomerase IIα. Cancer Res. 71: 561-571.