SANTA CRUZ BIOTECHNOLOGY, INC.

GFP (1-16): sc-5385

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 (1-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GFP of *Aequorea victoria* origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-5385 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-5385 AC, 500 µg/0.25 ml agarose in 1 ml; as HRP conjugate for Western blotting, sc-5385 HRP, 200 µg/1 ml; as fluorescein (sc-5385 FITC) or rhodamine (sc-5385 TRITC) conjugate for immunofluorescence, 200 µg/1 ml; and as Alexa Fluor® 405 (sc-5385 AF405), Alexa Fluor® 488 (sc-5385 AF488) or Alexa Fluor® 647 (sc-5385 AF647) conjugates for flow cytometry or immunofluorescence; 100 µg/2 ml.

APPLICATIONS

GFP (1-16) 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.

Positive Controls: GFP transfected COS whole cell lysate.

STORAGE

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

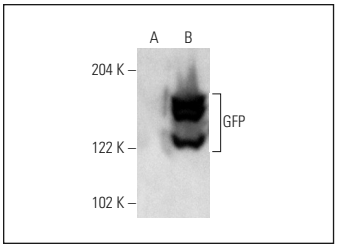
PROTOCOLS

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

RESEARCH USE

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

DATA



GFP (I-16): sc-5385. Western blot analysis of GFP expression in COS (**A**) and GFP transfected COS (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

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6. Lo, W.C., et al. 2009. Transplantation of embryonic fibroblasts treated with platelet-rich plasma induces osteogenesis in SAMP8 mice monitored by molecular imaging. J. Nucl. Med. 50: 765-773.
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8. Miyake, T., et al. 2010. Nuclear function of Smad7 promotes myogenesis. Mol. Cell. Biol. 30: 722-735.
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