SANTA CRUZ BIOTECHNOLOGY, INC.

GBP5 (L-12): sc-160356

BACKGROUND

GBP5 (guanylate binding protein 5), also known as GBP-TA antigen, is a 586 amino acid protein that localizes to the cytoplasmic side of the cell membrane. Belonging to the interferon (IFN)-inducible guanylate-binding protein (GBP) family, GBP5 may be involved in the inflammatory response or with cell proliferation and is suggested to have possible cancer-related functions. The gene encoding GBP5 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Strehlow, I., et al. 1994. The interferon-inducible GBP1 gene: structure and mapping to human chromosome 1. Gene 144: 295-299.
2. Han, B.H., et al. 1998. Cloning, expression, and characterization of a novel guanylate-binding protein, GBP3 in murine erythroid progenitor cells. Biochim. Biophys. Acta 1384: 373-386.
3. Nguyen, T.T., et al. 2002. Murine GBP5, a new member of the murine guanylate-binding protein family, is coordinately regulated with other GBPs *in vivo* and *in vitro*. J. Interferon Cytokine Res. 22: 899-909.

CHROMOSOMAL LOCATION

Genetic locus: Gbp5 (mouse) mapping to 3 H1.

SOURCE

GBP5 (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GBP5 of mouse 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-160356 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

PROTOCOLS

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

APPLICATIONS

GBP5 (L-12) is recommended for detection of GBP5 of mouse and rat origin 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); non cross-reactive with other GBP family members.

Suitable for use as control antibody for GBP5 siRNA (m): sc-145352, GBP5 shRNA Plasmid (m): sc-145352-SH and GBP5 shRNA (m) Lentiviral Particles: sc-145352-V.

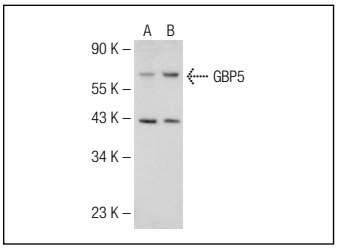
Molecular Weight of GBP5: 67 kDa.

Positive Controls: mouse lung extract: sc-2390.

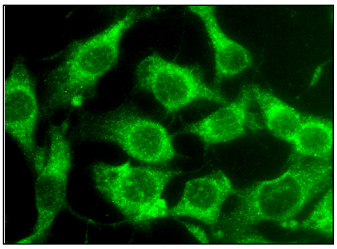
RECOMMENDED SECONDARY REAGENTS

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.

DATA



GBP5 (L-12): sc-160356. Western blot analysis of GBP5 expression in non-transfected: sc-110760 (**A**) and human GBP5 transfected: sc-114472 (**B**) 293 whole cell lysates.



GBP5 (L-12): sc-160356. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Yamamoto, M., et al. 2012. A cluster of interferon-γ-inducible p65 GTPases plays a critical role in host defense against *Toxoplasma gondii*. Immunity 37: 302-313.