

GBP5 (C-14): sc-160353

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.
4. Fellenberg, F., et al. 2004. GBP5 splicing variants: new guanylate-binding proteins with tumor-associated expression and antigenicity. *J. Invest. Dermatol.* 122: 1510-1517.
5. Olszewski, M.A., et al. 2006. In silico genomic analysis of the human and murine guanylate-binding protein (GBP) gene clusters. *J. Interferon Cytokine Res.* 26: 328-352.
6. Saban, M.R., et al. 2007. Repeated BCG treatment of mouse bladder selectively stimulates small GTPases and HLA antigens and inhibits single-spanning uroplakins. *BMC Cancer* 7: 204.

CHROMOSOMAL LOCATION

Genetic locus: GBP5 (human) mapping to 1p22.2.

SOURCE

GBP5 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GBP5 of human 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-160353 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.

APPLICATIONS

GBP5 (C-14) is recommended for detection of GBP5 of human 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 (h): sc-88824, GBP5 shRNA Plasmid (h): sc-88824-SH and GBP5 shRNA (h) Lentiviral Particles: sc-88824-V.

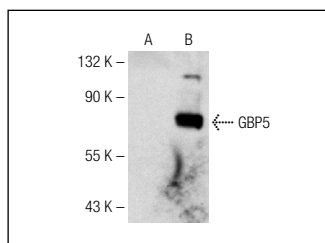
Molecular Weight of GBP5: 67 kDa.

Positive Controls: GBP5 (h): 293 Lysate: sc-114472.

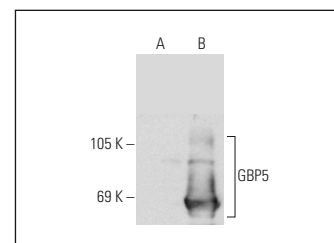
RECOMMENDED SECONDARY REAGENTS

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 (C-14): sc-160353. Western blot analysis of GBP5 expression in non-transfected: sc-117752 (A) and human GBP5 transfected: sc-173677 (B) 293T whole cell lysates.



GBP5 (C-14): sc-160353. Western blot analysis of GBP5 expression in non-transfected: sc-110760 (A) and human GBP5 transfected: sc-114472 (B) 293 whole cell lysates.

RESEARCH USE

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



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Try **GBP1-5 (G-12): sc-166960**, our highly recommended monoclonal alternative to GBP5 (C-14).