

# GBP2 (N-17): sc-10581

## BACKGROUND

Guanylate-binding proteins, GBP1 and GBP2 are 67 kDa GTP-binding proteins with a high-turnover GTPase activity and an antiviral effect. GBP1 mediates an antiviral effect against vesicular stomatitis virus and encephalomyocarditis virus and plays a role in the IFN-mediated antiviral response against these viruses. GBP1 and GBP2 belong to a group of large GTP-binding proteins with a high concentration-dependent GTPase activity that have the common ability to undergo oligomerization. GBP1 and GBP2 are bone marrow-derived GTPases encoded by interferon-activated genes and are inducible following IFN treatment. Specifically, GBP1 is expressed in cultured mammary epithelial tumor cell lines after treatment with IFN- $\gamma$  and LPS.

## REFERENCES

1. Praefcke, G.J., et al. 1999. Nucleotide-binding characteristics of human guanylate-binding protein 1 (hGBP1) and identification of the third GTP-binding motif. *J. Mol. Biol.* 292: 321-332.
2. Anderson, S.L., et al. 1999. Genomic organization and chromosomal localization of a new member of the murine interferon-induced guanylate-binding protein family. *J. Interferon Cytokine Res.* 19: 487-494.
3. Anderson, S.L., et al. 1999. Interferon-induced guanylate binding protein-1 (GBP-1) mediates an antiviral effect against vesicular stomatitis virus and encephalomyocarditis virus. *Virology* 256: 8-14.
4. Sun, H., et al. 1999. Interleukin-10 gene transfer activates interferon- $\gamma$  and the interferon- $\gamma$ -inducible genes Gbp-1/Mag-1 and Mig-1 in mammary tumors. *Int. J. Cancer* 80: 624-629.
5. Prakash, B., et al. 2000. Structure of human guanylate-binding protein 1 representing a unique class of GTP-binding proteins. *Nature* 403: 567-571.

## CHROMOSOMAL LOCATION

Genetic locus: GBP2 (human) mapping to 1p22.2.

## SOURCE

GBP2 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GBP2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10581 P, (100  $\mu$ g 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

GBP2 (N-17) is recommended for detection of GBP2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Suitable for use as control antibody for GBP2 siRNA (h): sc-106877, GBP2 shRNA Plasmid (h): sc-106877-SH and GBP2 shRNA (h) Lentiviral Particles: sc-106877-V.

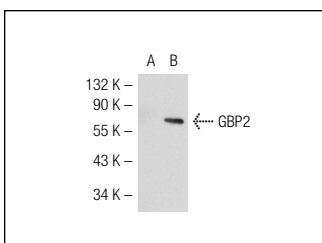
Molecular Weight of GBP2: 67 kDa.

Positive Controls: GBP2 (h): 293T Lysate: sc-111436 or MCP-5 whole cell lysate.

## 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



GBP2 (N-17): sc-10581. Western blot analysis of GBP2 expression in non-transfected: sc-117752 (A) and human GBP2 transfected: sc-111436 (B) 293T whole cell lysates.

## RESEARCH USE

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

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Try **GBP2 (G-9): sc-271568**, our highly recommended monoclonal alternative to GBP2 (N-17).