# SANTA CRUZ BIOTECHNOLOGY, INC.

# GBP1-5 (H-300): sc-28579



# BACKGROUND

Guanylate-binding proteins (GBP) GTP-binding proteins with a high-turnover GTPase activity and an antiviral effect. GBP proteins belong to a group of large GTP-binding proteins with a high concentration-dependent GTPase activity and a common ability to undergo oligomerization. GBP proteins are bone marrow-derived GTPases encoded by interferon-activated genes and are inducible following IFN treatment.

# REFERENCES

- Praefcke, G.J., Geyer, M., Schwemmle, M., Kalbitzer, H.R. and Herrmann, C. 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.
- Anderson, S.L., Carton, J.M., Zhang, X. and Rubin, B.Y. 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.
- Anderson, S.L., Carton, J.M., Lou, J., Xing, L. and Rubin, B.Y. 1999. Interferon-induced guanylate binding protein-1 (GBP-1) mediates an antiviral effect against vesicular stomatitis virus and encephalomyocarditis virus. Virology 256: 8-14.
- Prakash, B., Praefcke, G.J., Renault, L., Wittinghofer, A. and Herrmann, C. 2000. Structure of human guanylate-binding protein 1 representing a unique class of GTP-binding proteins. Nature 403: 567-571.

# CHROMOSOMAL LOCATION

Genetic locus: GBP1/GBP2/GBP3/GBP4/GBP5 (human) mapping to 1p22.2; Gbp2b/Gbp2/Gbp3/Gbp4/Gbp5 (mouse) mapping to 3 H1.

# SOURCE

GBP1-5 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of GBP1 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.

#### **APPLICATIONS**

GBP1-5 (H-300) is recommended for detection of GBP1-5 of mouse, rat and 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).

GBP1-5 (H-300) is also recommended for detection of GBP1-5 in additional species, including equine.

Molecular Weight of GBP1-5: 67 kDa.

Positive Controls: GBP2 (m): 293T Lysate: sc-120431, mouse uterus tissue extract: sc-364254 or BT-20 cell lysate: sc-2223.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

#### DATA





GBP1-5 (H-300): sc-28579. Western blot analysis of GBP1-5 expression in mouse uterus tissue extract.

GBP1-5 (H-300): sc-28579. Western blot analysis of GBP2 expression in non-transfected: sc-117752 (A) and mouse GBP2 transfected: sc-120431 (B) 293T whole cell lysates.

#### **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.

# MONOS Satisfation Guaranteed

Try **GBP1-5 (G-12): sc-166960**, our highly recommended monoclonal aternative to GBP1-5 (H-300).