

# MGC29506 (D-15): sc-168603

## BACKGROUND

MGC29506, also known as MZB1 (marginal zone B and B1 cell-specific protein), PACAP (proapoptotic caspase adapter protein) or plasma cell-induced resident endoplasmic reticulum protein, is a 189 amino acid protein that exists as 5 alternatively spliced isoforms. MGC29506 isoform 1 has been found to localize to the endoplasmic reticulum, while isoform 2 localizes to the cytoplasm surrounding the nucleus. A member of the PERP1 family, MGC29506 promotes IgM assembly and secretion and is widely expressed, with highest levels found in brain, thymus, spleen and small intestine. The gene encoding MGC29506 maps to human chromosome 5q31.2.

## REFERENCES

- Zhang, Q.H., et al. 2000. Cloning and functional analysis of cDNAs with open reading frames for 300 previously undefined genes expressed in CD34<sup>+</sup> hematopoietic stem/progenitor cells. *Genome Res.* 10: 1546-1560.
- Bonfoco, E., et al. 2001. Characterization of a novel proapoptotic caspase-2- and caspase-9-binding protein. *J. Biol. Chem.* 276: 29242-29250.
- Vaudry, D., et al. 2002. Pituitary adenylate cyclase-activating polypeptide protects rat cerebellar granule neurons against ethanol-induced apoptotic cell death. *Proc. Natl. Acad. Sci. USA* 99: 6398-6403.
- Katoh, M., et al. 2003. MGC29506 gene, frequently down-regulated in intestinal-type gastric cancer, encodes secreted-type protein with conserved cysteine residues. *Int. J. Oncol.* 23: 235-241.
- Shimizu, Y., et al. 2009. pERp1 is significantly up-regulated during plasma cell differentiation and contributes to the oxidative folding of immunoglobulin. *Proc. Natl. Acad. Sci. USA* 106: 17013-17018.
- van Anken, E., et al. 2009. Efficient IgM assembly and secretion require the plasma cell induced endoplasmic reticulum protein pERp1. *Proc. Natl. Acad. Sci. USA* 106: 17019-17024.
- Flach, H., et al. 2010. Mzb1 protein regulates calcium homeostasis, antibody secretion, and integrin activation in innate-like B cells. *Immunity* 33: 723-735.

## CHROMOSOMAL LOCATION

Genetic locus: MZB1 (human) mapping to 5q31.2.

## SOURCE

MGC29506 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MGC29506 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-168603 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

MGC29506 (D-15) is recommended for detection of MGC29506 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).

MGC29506 (D-15) is also recommended for detection of MGC29506 in additional species, including canine.

Suitable for use as control antibody for MGC29506 siRNA (h): sc-91924, MGC29506 shRNA Plasmid (h): sc-91924-SH and MGC29506 shRNA (h) Lentiviral Particles: sc-91924-V.

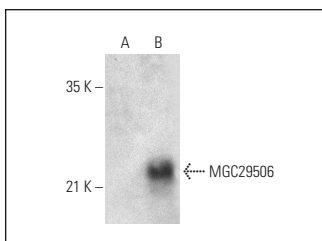
Molecular Weight of MGC29506 isoforms: 21/13/10/8/7 kDa.

Positive Controls: Raji whole cell lysate: sc-364236 or MGC29506 (h): 293T Lysate: sc-175812.

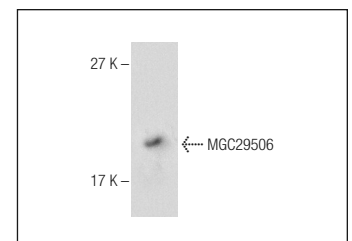
## RECOMMENDED SECONDARY REAGENTS

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



MGC29506 (D-15): sc-168603. Western blot analysis of MGC29506 expression in non-transfected: sc-117752 (A) and human MGC29506 transfected: sc-175812 (B) 293T whole cell lysates.



MGC29506 (D-15): sc-168603. Western blot analysis of MGC29506 expression in Raji 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](http://www.scbt.com) or our catalog for detailed protocols and support products.