SANTA CRUZ BIOTECHNOLOGY, INC.

# MYCBP (R-17): sc-102030

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

The c-Myc proto-oncogene plays a significant role in cell proliferation, differentiation, transformation and apoptosis. A novel c-Myc binding protein MYCBP (also designated AMY-1) binds to the transactivation domain of c-Myc and stimulates the activation of E-box-dependent transcription. MYCBP translocates from the cytoplasm to the nucleus during S phase when increased expression of c-Myc occurs. MYCBP has also been shown to associate with AKAP 149 and AKAP 84 in mitochondria of somatic cells and sperm, which suggests a role for MYCBP in spermatogenesis. In addition, MYCBP localizes to the *trans*-Golgi network (TGN) and the nucleus, where it binds the high molecular weight guanine-nucleotide exchange factor BIG2 *in vivo* to coordinate ADP-ribosylation factor-mediated membrane trafficking and signaling pathways.

## REFERENCES


1. Taira, T., et al. 1998. AMY-1, a novel C-Myc binding protein that stimulates transcription activity of C-Myc. Genes Cells 3: 549-565.
2. Furusawa, M., et al. 2000. AMY-1 is a trigger for the erythrocyte differentiation of K-562 cells. Int. J. Oncol. 16: 339-345.
3. Furusawa, M., et al. 2001. AMY-1, a c-Myc-binding protein, is localized in the mitochondria of sperm by association with S-AKAP 84, an anchor protein of cAMP-dependent protein kinase. J. Biol. Chem. 276: 36647-36651.
4. Yukitake, H., et al. 2002. AMAP-1, a novel testis-specific AMY-1-binding protein, is differentially expressed during the course of spermatogenesis. Biochim. Biophys. Acta 1577: 126-132.
5. Yukitake, H., et al. 2002. AAT-1, a novel testis-specific AMY-1-binding protein, forms a quaternary complex with AMY-1, A-kinase anchor protein 84, and a regulatory subunit of cAMP-dependent protein kinase and is phosphorylated by its kinase. J. Biol. Chem. 277: 45480-45492.
6. Furusawa, M., et al. 2002. AMY-1 interacts with S-AKAP 84 and AKAP 95 in the cytoplasm and the nucleus, respectively, and inhibits cAMP-dependent protein kinase activity by preventing binding of its catalytic subunit to A-kinase-anchoring protein (AKAP) complex. J. Biol. Chem. 277: 50885-50892.


## CHROMOSOMAL LOCATION

Genetic locus: MYCBP (human) mapping to 1p34.3.

## SOURCE

MYCBP (R-17) is a purified rabbit polyclonal antibody raised against MYCBP of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

MYCBP (R-17) is recommended for detection of MYCBP 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), immunohistochemistry (including paraffin-embedded sections) (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 MYCBP siRNA (h): sc-88098, MYCBP shRNA Plasmid (h): sc-88098-SH and MYCBP shRNA (h) Lentiviral Particles: sc-88098-V.

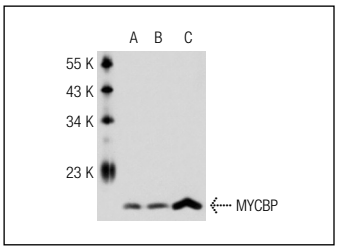
Molecular Weight of MYCBP: 11 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

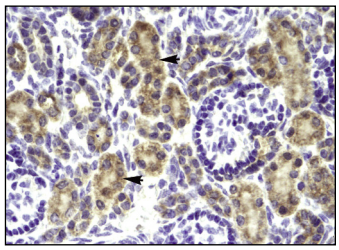
## RECOMMENDED SECONDARY REAGENTS

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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 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™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA




MYCBP (R-17): sc-102030. Western blot analysis of MYCBP expression in non-transfected 293T: sc-117752 (**A**), human MYCBP transfected 293T: sc-110977 (**B**) and Jurkat (**C**) whole cell lysates.



MYCBP (R-17): sc-102030. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining.

## RESEARCH USE

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