BAP29 (S-14): sc-82526



The Power to Question

BACKGROUND

BAP29 (BCR-associated protein 29), also known as BCAP29 (B cell receptor-associated protein 29), is a multi-pass membrane protein localizing to the endoplasmic reticulum (ER) and belonging to the BCAP29/BCAP31 family of proteins. It is ubiquitously expressed with predominant expression in brain and testes. BAP29 contains a hydrophobic N-terminus, three transmembrane domains, a coiled-coil region and a C-terminal double-lysine motif that is implicated in vesicular transport. BAP29 exists as a homodimer or as a hetero-dimer with BAP31 and plays a role in membrane IgD molecule retention in the ER. In addition, the BAP29/BAP31 complex functions as a cargo receptor for MHC class I molecules and is important for recruiting the class I molecules to exit sites of the ER. The BAP29/BAP31 complex is also essential for proper trafficking from the ER to the Golgi.

REFERENCES

- Kim, K.M., Adachi, T., Nielsen, P.J., Terashima, M., Lamers, M.C., Köhler, G. and Reth, M. 1994. Two new proteins preferentially associated with membrane immunoglobulin D. EMBO J. 13: 3793-3800.
- 2. Adachi, T., Schamel, W.W., Kim, K.M., Watanabe, T., Becker, B., Nielsen, P.J. and Reth, M. 1996. The specificity of association of the IgD molecule with the accessory proteins BAP31/BAP29 lies in the IgD transmembrane sequence. EMBO J. 15: 1534-1541.
- 3. Breckenridge, D.G., Nguyen, M., Kuppig, S., Reth, M. and Shore, G.C. 2002. The procaspase-8 isoform, procaspase-8L, recruited to the BAP31 complex at the endoplasmic reticulum. Proc. Natl. Acad. Sci. USA 99: 4331-4336.
- Schamel, W.W., Kuppig, S., Becker, B., Gimborn, K., Hauri, H.P. and Reth, M. 2003. A high-molecular-weight complex of membrane proteins BAP29/ BAP31 is involved in the retention of membrane-bound IgD in the endoplasmic reticulum. Proc. Natl. Acad. Sci. USA 100: 9861-9866.
- Paquet, M.E., Cohen-Doyle, M., Shore, G.C. and Williams, D.B. 2004. BAP29/31 influences the intracellular traffic of MHC class I molecules. J. Immunol. 172: 7548-7555.
- Ladasky, J.J., Boyle, S., Seth, M., Li, H., Pentcheva, T., Abe, F., Steinberg, S.J. and Edidin, M. 2006. BAP31 enhances the endoplasmic reticulum export and quality control of human class I MHC molecules. J. Immunol. 177: 6172-6181.
- Szczesna-Skorupa, E. and Kemper, B. 2006. BAP31 is involved in the retention of cytochrome P450 2C2 in the endoplasmic reticulum. J. Biol. Chem. 281: 4142-4148.
- 8. Zhang, Y. and Williams, D.B. 2006. Assembly of MHC class I molecules within the endoplasmic reticulum. Immunol. Res. 35: 151-162.
- 9. Rao, P.S., Bickel, U., Srivenugopal, K.S. and Rao, U.S. 2008. BAP29varP, a variant of BAP29, influences the cell surface expression of the human P-glycoprotein. Int. J. Oncol. 32: 135-144.

CHROMOSOMAL LOCATION

Genetic locus: BCAP29 (human) mapping to 7q22.3; Bcap29 (mouse) mapping to 12 A3.

SOURCE

BAP29 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BAP29 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82526 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BAP29 (S-14) is recommended for detection of BAP29 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

BAP29 (S-14) is also recommended for detection of BAP29 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for BAP29 siRNA (h): sc-72609, BAP29 siRNA (m): sc-72610, BAP29 shRNA Plasmid (h): sc-72609-SH, BAP29 shRNA Plasmid (m): sc-72610-SH, BAP29 shRNA (h) Lentiviral Particles: sc-72609-V and BAP29 shRNA (m) Lentiviral Particles: sc-72610-V.

Molecular Weight of BAP29: 29 kDa.

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) 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.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**