

BAP29 (W352): sc-101213

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 heterodimer 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

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- Adachi, T., et al. 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.
- Breckenridge, D.G., et al. 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., et al. 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., et al. 2004. BAP29/31 influences the intracellular traffic of MHC class I molecules. *J. Immunol.* 172: 7548-7555.
- Ladasky, J.J., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

BAP29 (W352) is a mouse monoclonal antibody raised against recombinant BAP29 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

BAP29 (W352) 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), 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 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.

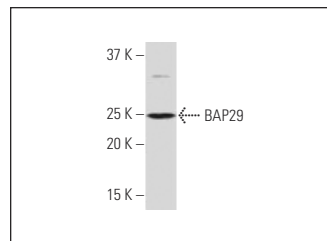
Molecular Weight of BAP29: 29 kDa.

Positive Controls: PC-12 cell lysate: sc-2250.

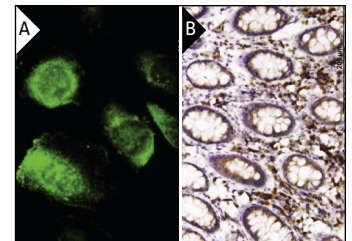
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



BAP29 (W352): sc-101213. Western blot analysis of BAP29 expression in PC-12 whole cell lysate.



BAP29 (W352): sc-101213. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon tissue showing cytoplasmic localization (B).

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.