

BCAP (E-5): sc-515498

BACKGROUND

B cell adaptor for phosphoinositide 3-kinase (BCAP) is a tyrosine kinase substrate that bridges B cell receptor (BCR) associated kinases to the PIK3 pathway. Syk, Btk or Lyn-dependent tyrosine phosphorylation of BCAP, provides binding sites for the p85 subunit of PIK3. BCAP mRNA is present in mouse spleen, thymus, liver, lung, macrophage and B cell lines. Human BCAP maps to chromosome 10q24.1.

REFERENCES

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- Inabe, K., et al. 2002. Tyrosine phosphorylation of B cell adaptor for phosphoinositide 3-kinase is required for Akt activation in response to CD19 engagement. *Blood* 99: 584-589.
- Yamazaki, T., et al. 2002. Essential immunoregulatory role for BCAP in B cell development and function. *J. Exp. Med.* 195: 535-545.
- Yamazaki, T., et al. 2003. Contribution of BCAP to maintenance of mature B cells through c-Rel. *Nat. Immunol.* 4: 780-786.
- Battersby, A., et al. 2003. Isolation of proteins that interact with the signal transduction molecule Dof and identification of a functional domain conserved between Dof and vertebrate BCAP. *J. Mol. Biol.* 329: 479-493.
- Online Mendelian Inheritance in Man, OMIMTM. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607942. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- MacFarlane, A.W., et al. 2008. Enhanced NK-cell development and function in BCAP-deficient mice. *Blood* 112: 131-140.
- LocusLink Report (LocusID: 118788). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: PIK3AP1 (human) mapping to 10q24.1; Pik3ap1 (mouse) mapping to 19 C3.

SOURCE

BCAP (E-5) is a mouse monoclonal antibody raised against amino acids 552-797 mapping near the C-terminus of BCAP of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BCAP (E-5) is available conjugated to agarose (sc-515498 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515498 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515498 PE), fluorescein (sc-515498 FITC), Alexa Fluor® 488 (sc-515498 AF488), Alexa Fluor® 546 (sc-515498 AF546), Alexa Fluor® 594 (sc-515498 AF594) or Alexa Fluor® 647 (sc-515498 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515498 AF680) or Alexa Fluor® 790 (sc-515498 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

BCAP (E-5) is recommended for detection of BCAP isoforms 1-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for BCAP siRNA (h): sc-44681, BCAP siRNA (m): sc-44682, BCAP shRNA Plasmid (h): sc-44681-SH, BCAP shRNA Plasmid (m): sc-44682-SH, BCAP shRNA (h) Lentiviral Particles: sc-44681-V and BCAP shRNA (m) Lentiviral Particles: sc-44682-V.

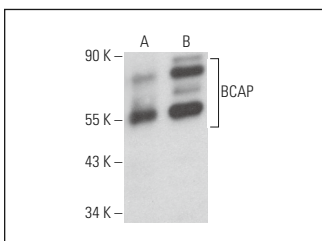
Molecular Weight of BCAP: 70-100 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, U-698-M whole cell lysate: sc-364799 or Ramos cell lysate: sc-2216.

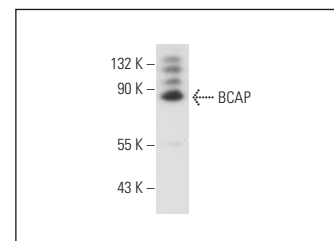
RECOMMENDED SUPPORT REAGENTS

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.

DATA



BCAP (E-5): sc-515498. Western blot analysis of BCAP expression in Ramos (A) and U-698-M (B) whole cell lysates.



BCAP (E-5): sc-515498. Western blot analysis of BCAP expression in BJAB 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.