

RBCK1 (H-1): sc-393754

BACKGROUND

The RING finger motif is a specialized DNA-binding zinc finger domain found in many transcriptional regulatory proteins. RBCK protein interacting with PKC 1 (RBCK1), a member of the RING-IBR protein family, interacts with β -I-type (PRKCB1) and Z-type protein kinase C (PRKCZ) as well as UBE2L3, and has a new type of RING-B-box-coiled-coil (RBCC) region. RBCK1 can form homodimers *in vitro* and is a transcription factor with both transcriptional and DNA-binding activities that are unlike other RBCC family proteins. RBCK1 shuttles between the cytoplasm and nucleus and possesses nuclear export and localization signals within its amino acid sequence. It may function as an E3 ubiquitin-protein ligase, or as a part of the E3 complex, which accepts ubiquitin from E2 ubiquitin-conjugating enzymes, such as UBE2L3/UBCM4, and then transfers ubiquitin to substrates.

CHROMOSOMAL LOCATION

Genetic locus: RBCK1 (human) mapping to 20p13; Rbck1 (mouse) mapping to 2 G3.

SOURCE

RBCK1 (H-1) is a mouse monoclonal antibody raised against amino acids 216-510 mapping at the C-terminus of RBCK1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-393754 X, 200 μ g/0.1 ml.

RBCK1 (H-1) is available conjugated to agarose (sc-393754 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393754 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393754 PE), fluorescein (sc-393754 FITC), Alexa Fluor[®] 488 (sc-393754 AF488), Alexa Fluor[®] 546 (sc-393754 AF546), Alexa Fluor[®] 594 (sc-393754 AF594) or Alexa Fluor[®] 647 (sc-393754 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-393754 AF680) or Alexa Fluor[®] 790 (sc-393754 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

RBCK1 (H-1) is recommended for detection of RBCK1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 RBCK1 siRNA (h): sc-61446, RBCK1 siRNA (m): sc-61447, RBCK1 shRNA Plasmid (h): sc-61446-SH, RBCK1 shRNA Plasmid (m): sc-61447-SH, RBCK1 shRNA (h) Lentiviral Particles: sc-61446-V and RBCK1 shRNA (m) Lentiviral Particles: sc-61447-V.

RBCK1 (H-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

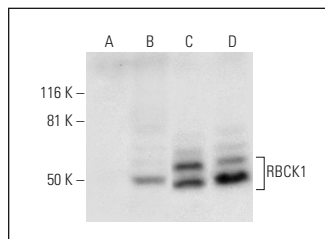
Molecular Weight of RBCK1: 56 kDa.

Positive Controls: RBCK1 (h): 293 Lysate: sc-110821.

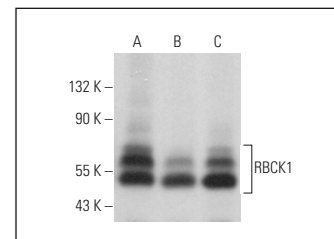
STORAGE

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

DATA



RBCK1 (H-1): sc-393754. Western blot analysis of RBCK1 expression in non-transfected 293: sc-110760 (A), human RBCK1 transfected 293: sc-110821 (B), A-431 (C) and Jurkat (D) whole cell lysates.



RBCK1 (H-1): sc-393754. Western blot analysis of RBCK1 expression in Hep G2 (A), A549 (B) and A-375 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Cho, J.J., et al. 2019. HECTD3 promotes pathogenic Th17 lineage through Stat3 activation and MALT1 signaling in neuroinflammation. *Nat. Commun.* 10: 701.
2. Wang, Z., et al. 2019. Coordinated regulation of scaffold opening and enzymatic activity during CARD11 signaling. *J. Biol. Chem.* 294: 14648-14660.
3. Jacobs, K.A., et al. 2020. Paracaspase MALT1 regulates glioma cell survival by controlling endo-lysosome homeostasis. *EMBO J.* 39: e102030.
4. Nicolau, C.A., et al. 2020. TAK1 lessens the activity of the paracaspase MALT1 during T cell receptor signaling. *Cell. Immunol.* 353: 104115.
5. Douanne, T., et al. 2020. The LUBAC participates in lysophosphatidic acid-induced NF κ B activation. *Cell. Immunol.* 353: 104133.
6. Miyashita, H., et al. 2021. Crosstalk between NDP52 and LUBAC in innate immune responses, cell death, and xenophagy. *Front. Immunol.* 12: 635475.
7. Zhang, H., et al. 2021. Hypoxia regulates overall mRNA homeostasis by inducing Met1-linked linear ubiquitination of AGO2 in cancer cells. *Nat. Commun.* 12: 5416.
8. Hutcherson, S.M., et al. 2021. Pathway-specific defects in T, B, and NK cells and age-dependent development of high IgE in mice heterozygous for a CADINS-associated dominant negative CARD11 allele. *J. Immunol.* 207: 1150-1164.
9. Bedsaul, J.R., et al. 2022. Mechanistic impact of oligomer poisoning by dominant-negative CARD11 variants. *iScience* 25: 103810.
10. O'Neill, T.J., et al. 2023. TRAF6 controls T cell homeostasis by maintaining the equilibrium of MALT1 scaffolding and protease functions. *Front. Immunol.* 14: 1111398.

RESEARCH USE

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

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