

Carabin Antibody
Catalog # ASC10554**Specification**

Carabin Antibody - Product Information

Application	WB, IHC
Primary Accession	Q8IV04
Other Accession	NP_940919 , 38348348
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	Carabin antibody can be used for detection of Carabin by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL.

Carabin Antibody - Additional Information

Gene ID	374403
Target/Specificity	
TBC1D10C;	

Reconstitution & Storage

Carabin antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

Carabin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Carabin Antibody - Protein Information

Name TBC1D10C

Function

Inhibits the Ras signaling pathway through its intrinsic Ras GTPase-activating protein (GAP) activity. Acts as a negative feedback inhibitor of the calcineurin signaling pathway that also mediates crosstalk between calcineurin and Ras.

Tissue Location

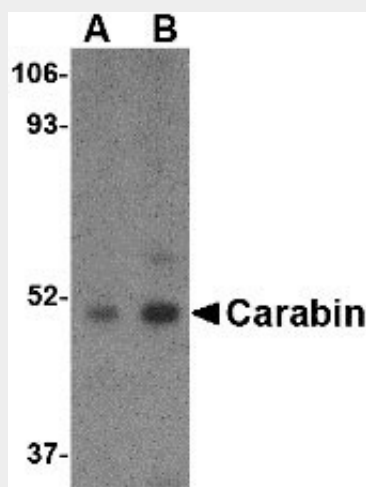
Most abundant in spleen and peripheral blood leukocytes.

Carabin Antibody - Protocols

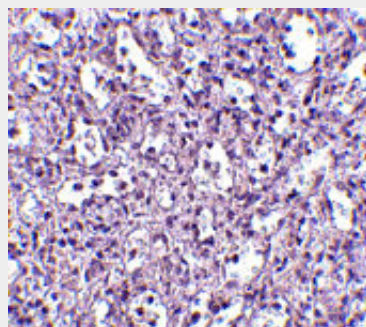
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Carabin Antibody - Images



Western blot analysis of Carabin in Daudi cell lysate with Carabin antibody at (A) 1 and (B) 2 $\mu\text{g/mL}$.



Immunohistochemistry of Carabin in human spleen tissue with Carabin antibody at 2.5 $\mu\text{g/mL}$.

Carabin Antibody - Background

Carabin Antibody: Antigen binding by the T-cell receptor (TCR) is one of the critical first steps in the immune response, triggering a cascade of signaling pathways that ultimately lead to T-cell activation. Screening a yeast two-hybrid screen of a human T-cell cDNA library with calcineurin, a protein phosphatase involved in multiple signaling pathways including T-cell activation, resulted in the identification of Carabin, a member of the TBC1 domain family of proteins, as a calcineurin-binding protein. Unlike other members of the TBC1 domain protein family which are thought to have a role in regulating cell growth and differentiation, further experiments demonstrated that Carabin is part of a negative regulatory loop for the intracellular TCR signaling pathway as well as an inhibitor of the Ras signaling pathway, suggesting that Carabin may also mediate crosstalk between calcineurin and Ras. Carabin antibody does not recognize TBC1D10A or

TBC1D10B. Carabin is known to exist in multiple isoforms.

Carabin Antibody - References

Weil R and Israel A. Deciphering the pathway from the TCR to NF-kappaB. Cell Death Differ.2006; 13:826-33.

Im SH and Rao A. Activation and deactivation of gene expression Ca²⁺/calcineurin-NFAT-mediated signaling. Mol. Cells2004; 18:1-9.

Pan F, Sun L, Kardian DB, et al. Feedback inhibition of calcineurin and ras by a dual inhibitory protein carabin. Nature2007; 445:433-6.

White RA, Pasztor LM, Richardson PM, et al. The gene encoding TBC1D1 with homology to the tre-2/USP6 oncogene, Bub2, and cdc16 maps to mouse chromosome 5 and human chromosome 4. Cytogenet. Cell Genet.2000; 89:272-5.