

BICD1 Antibody

Catalog # ASC10719

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q96G01
Other Accession	NP_001705 , 51039802
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	110750
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	BICD1 antibody can be used for detection of BICD1 by Western blot at 1 μ g/mL. Antibody can also be used for immunocytochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 10 μ g/mL.

Additional Information

Gene ID	636
Other Names	Protein bicaudal D homolog 1, Bic-D 1, BICD1
Target/Specificity	BICD1; At least two isoforms of BICD1 are known to exist; this antibody will only recognize the larger isoform.
Reconstitution & Storage	BICD1 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	BICD1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BICD1
Function	Regulates coat complex coatomer protein I (COPI)-independent Golgi-endoplasmic reticulum transport by recruiting the dynein-dynactin motor complex.
Cellular Location	Golgi apparatus.
Tissue Location	Expressed in the brain, heart and skeletal muscle.

Background

BICD1 Antibody: BICD1 was initially identified as the human homolog to *Drosophila* Bicaudal-D protein that forms part of the cytoskeleton and mediates the correct sorting of mRNAs for oocyte- and axis-determining factors during oogenesis. BICD1 can bind to dynein-dynactin and co-localizes with Rab6A on the trans-Golgi network and cytoplasmic vesicles, suggesting BICD1 regulates COPI-independent Golgi-ER transport. BICD1 will also interact with Rab6B, a Rab6 isoform that is expressed primarily in brain. Live cell imaging showed bi-directional movement of Rab6B structures in SK-N-SH neurites, indicating that BICD1 is involved in the Rab6B regulation of retrograde cargo transport in neuronal cells.

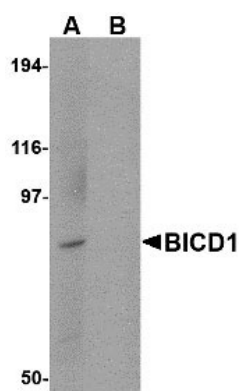
References

Baens M and Marynen P. A human homologue (BICD1) of the *drosophila* bicaudal-D gene. *Genomics* 1997; 45:601-6.

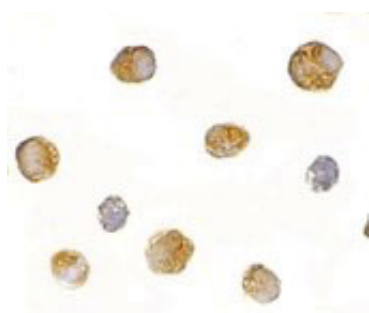
Matanis T, Akhmanova A, Wulf P, et al. Bicaudal-D regulates COPI-independent Golgi-ER transport by recruiting the dynein-dynactin motor complex. *Nat. Cell Biol.* 2002; 986-92.

Wanshers BF, van de Vorstenbosch R, Schlager MA, et al. A role for the Rab6B Bicaudal-D1 interaction in retrograde transport in neuronal cells. *Exp. Cell Res.* 2007; 313:3408-20.

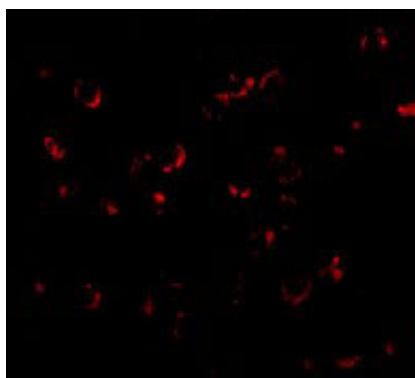
Images



Western blot analysis of BICD1 in Daudi cell lysate with BICD1 antibody at 1 $\mu\text{g/mL}$ in (A) the absence and (B) the presence of blocking peptide.



Immunocytochemistry of BICD1 in Daudi cells with BICD1 antibody at 2.5 $\mu\text{g/mL}$.



Immunofluorescence of BICD1 in Daudi cells with BICD1 antibody at 20 $\mu\text{g/mL}$.

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