

For Research Use Only

# DCLK1 Monoclonal antibody

Catalog Number: 68234-1-Ig **1 Publications**



## Basic Information

<b>Catalog Number:</b> 68234-1-Ig	<b>GenBank Accession Number:</b> BC152456	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 9201	<b>CloneNo.:</b> 3C12C1
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> O15075	<b>Recommended Dilutions:</b> WB: 1:5000-1:50000
<b>Isotype:</b> IgG1	<b>Full Name:</b> doublecortin-like kinase 1	<b>IHC:</b> 1:500-1:2000
<b>Immunogen Catalog Number:</b> AG17110	<b>Calculated MW:</b> 729 aa, 81 kDa	<b>IF-P:</b> 1:200-1:800
	<b>Observed MW:</b> 46 kDa, 82 kDa	<b>FC (Intra):</b> 0.40 ug per 10 <sup>6</sup> cells in a 100 µl suspension

## Applications

<b>Tested Applications:</b> WB, IHC, IF-P, FC (Intra), ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> IHC, IF	<b>WB :</b> pig brain tissue, fetal human brain tissue, rabbit brain tissue, rat brain tissue, mouse brain tissue
<b>Species Specificity:</b> Human, mouse, rat, rabbit, pig	<b>IHC :</b> mouse brain tissue,
<b>Cited Species:</b> mouse	<b>IF-P :</b> mouse brain tissue,
<b>Note-IHC:</b> suggested antigen retrieval with <b>TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>FC (Intra) :</b> Neuro-2a cells,

## Background Information

DCLK1 (Serine/threonine-protein kinase DCLK1) is also named as DCAMKL1, DCDC3A, KIAA0369 and belongs to the CAMK Ser/Thr protein kinase family. It is a microtubule-associated kinase that can undergo autophosphorylation and it also has microtubule-polymerizing activity that is independent of its protein kinase activity (PMID: 11124993). It plays a unique role in mitotic spindle integrity during early neurogenesis in radial glial cell proliferation and their radial process stability. DCLK1 is a unique marker for distinguishing tumor stem cells from intestinal normal stem cells (PMID: 23202126). This protein has 4 isoforms produced by alternative splicing with the molecular weight of 82 kDa, 81 kDa, 47 kDa and 48 kDa.

## Notable Publications

Author	Pubmed ID	Journal	Application
Yuxuan Yang	39617924	BMC Biol	IHC,IF

## Storage

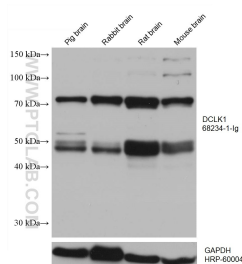
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

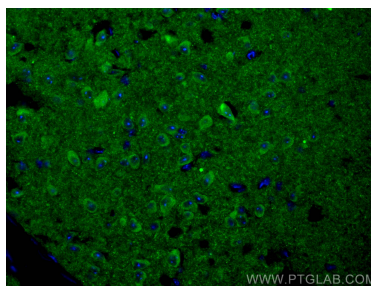
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

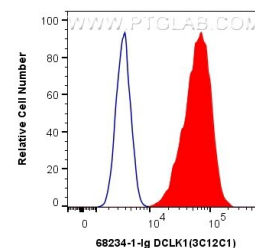
## Selected Validation Data



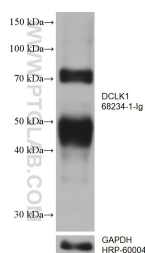
Various lysates were subjected to SDS PAGE followed by western blot with 68234-1-Ig (DCLK1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



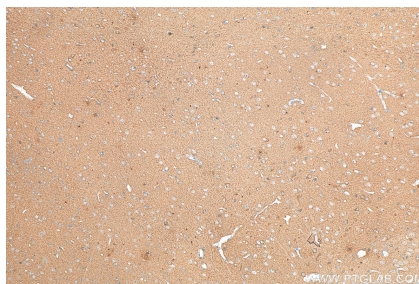
Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using DCLK1 antibody (68234-1-Ig, Clone: 3C12C1) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L).



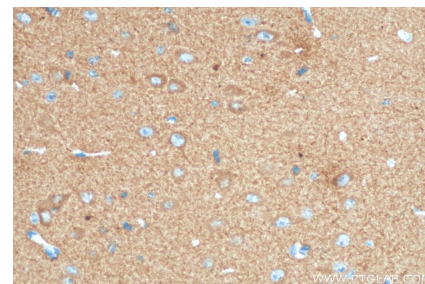
1X10<sup>6</sup> Neuro-2a cells were intracellularly stained with 0.4 ug Anti-Human DCLK1 (68234-1-Ig, Clone: 3C12C1) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG1 Isotype Control (MOPC-21) (65124-1-Ig, Clone: MOPC-21) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



fetal human brain tissue were subjected to SDS PAGE followed by western blot with 68234-1-Ig (DCLK1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 68234-1-Ig (DCLK1 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 68234-1-Ig (DCLK1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).