For Research Use Only

DCLK1 Monoclonal antibody

Catalog Number:68234-1-Ig 1 Publications

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Basic Information

Catalog Number:
68234-1-Ig

Size:
1000 μg/ml

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG17110

GenBank Accession Number:
BC152456

GeneID (NCBI):
9201

UNIPROT ID:
O15075

Full Name:
doublecortin-like kinase 1

Calculated MW:
729 aa, 81 kDa

Observed MW:
46 kDa, 82 kDa

Purification Method:
Protein G purification

CloneNo.:
3C12C1

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:500-1:2000
IF-P 1:200-1:800

Applications

Tested Applications:
WB, IHC, IF-P, FC (Intra), ELISA

Cited Applications:
IHC, IF

Species Specificity:
Human, mouse, rat, rabbit, pig

Cited Species:
mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : pig brain tissue, fetal human brain tissue, rabbit brain tissue, rat brain tissue, mouse brain tissue

IHC : mouse brain tissue,

IF-P : mouse brain tissue,

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

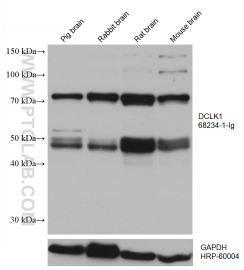
Author	Pubmed ID	Journal	Application
Yuxuan Yang	39617924	BMC Biol	IHC,IF

Storage

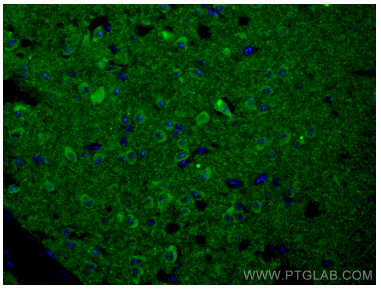
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

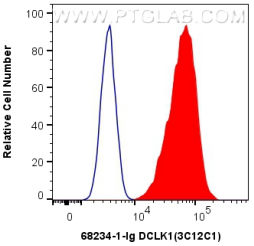
Selected Validation Data



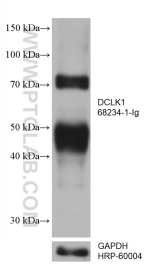
Various lysates were subjected to SDS PAGE followed by western blot with 68234-1-Ig (DCLK1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



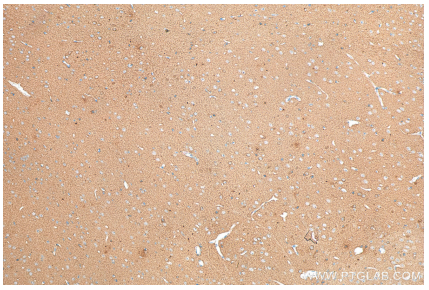
Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using DCLK1 antibody (68234-1-Ig, Clone: 3C12C1) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L).



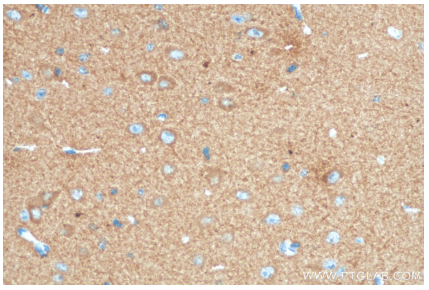
1X10^6 Neuro-2a cells were intracellularly stained with 0.4 ug Anti-Human DCLK1 (68234-1-Ig, Clone:3C12C1) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG1 Isotype Control (MOPC-21) (65124-1-Ig, Clone: MOPC-21) (blue). Cells were fixed with 4% PFA and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