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DCLK2 Antibody
Catalog # ASC11080

Specification

DCLK2 Antibody - Product Information

Application	**WB, IHC-P, E**
Primary Accession	Q8N568
Other Accession	NP_001035350, 156713428
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**DCLK2 antibody can be used for detection of DCLK2 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL.**

DCLK2 Antibody - Additional Information

Gene ID **166614**

Target/Specificity
DCLK2;

Reconstitution & Storage
DCLK2 antibody can be stored at 4℃ for three months and -20℃, 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
DCLK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

DCLK2 Antibody - Protein Information

Name DCLK2

Synonyms DCAMKL2, DCDC3B, DCK2

Function
Protein kinase with a significantly reduced C(a2+)/CAM affinity and dependence compared to other members of the CaMK family. May play a role in the down-regulation of CRE-dependent gene activation probably by phosphorylation of the CREB coactivator CRTC2/TORC2 and the resulting retention of TORC2 in the cytoplasm (By similarity).

Cellular Location
Cytoplasm, cytoskeleton. Note=Colocalizes with microtubules.

Tissue Location

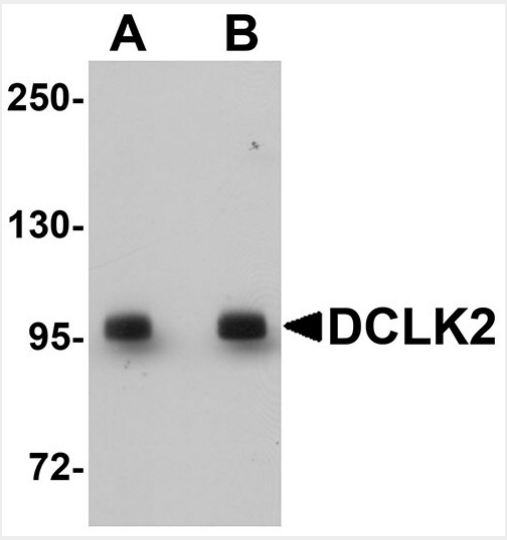
Expressed in the brain, heart and eyes.

DCLK2 Antibody - Protocols

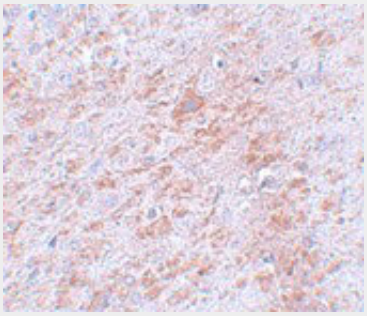
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DCLK2 Antibody - Images



Western blot analysis of DCLK2 in rat brain tissue lysate with DCLK2 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of DLCK2 in rat brain tissue with DLCK2 antibody at 5 µg/mL.

DCLK2 Antibody - Background

DCLK2 Antibody: DCLK2 is one of three doublecortin-like kinases similar to the Ca2+/calmodulin-dependent protein kinase (CaMK) family. DCLK2 mRNA, like that of the homologous DCLK1 and DCLK3, is highly expressed in adult brain, but only DCLK1 and DCLK2

transcripts are present in human fetal brain and the developing mouse embryo, suggesting that DCLK1 and DCLK2 may play roles in cortical development. The DCLK proteins are homologous to Doublecortin (DCX), a protein that is mutated in X-linked human lissencephaly. In mouse models where the DCX gene has been disrupted, DCLK1 expression increases slightly and appears to compensate for the loss of DCX, as mice mutant for both DCX and DCLK1 show a severe phenotype including perinatal lethality, disorganized neocortical layering, and profound hippocampal cytoarchitectural disorganization. Unlike DCLK1, DCLK2 expression does not change in DCX-null mice.

DCLK2 Antibody - References

Sossey-Alaoui K and Srivastava AK. DCAMKL1, a brain specific transmembrane protein on 13q12.3 that is similar to doublecortin (DCX), Genomics1999; 56:121-6.
Ohmae S, Takemoto-Kimura S, Okamura M, et al. Molecular identification and characterization of a family of kinases with homology to Ca2+/calmodulin-dependent protein kinases I/IV. J. Biol. Chem.2006; 281:20427-39.
Tuy FPD, Saillour Y, Kappeler C, et al. Alternative transcripts of Dlck1 and Dlck2 and their expression in doublecortin knockout mice. Dev. Neurosci.2008; 30:171-86.
Reiner O and Coquelle FM. Missense mutations resulting in type 1 lissencephaly. Cell Mol. Life Sci.2005; 62:425-34.