
Product Name: KD-Validated Doublecortin Like Kinase 1 Recombinant Rabbit Monoclonal Antibody

Catalog #: KVAb00741

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,M
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 82.2kDa

Antigen Information

Gene Name	DCLK1
Alternative Names	DCLK1; Doublecortin Like Kinase 1; DCDC3A; KIAA0369; DCAMKL1; DCLK; Doublecortin Domain-Containing Protein 3A; Doublecortin-Like And CAM Kinase-Like 1; Serine/Threonine-Protein Kinase DCLK1; Doublecortin-Like Kinase 1; EC 2.7.11.1; Doublecortin And CaM Kinase-Like 1; EC 2.7.11; CLICK1; CL1
Gene ID	9201.0
SwissProt ID	O15075
Immunogen	A synthesized peptide derived from human DCAMKL1

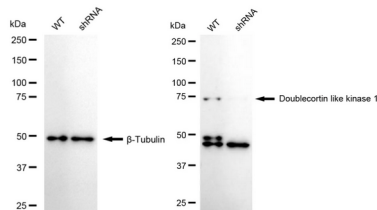
Background

This gene encodes a member of the protein kinase superfamily and the doublecortin family. The protein encoded by this gene contains two N-terminal doublecortin domains, which bind microtubules and regulate microtubule polymerization, a C-terminal serine/threonine protein kinase domain, which shows substantial homology to Ca²⁺/calmodulin-dependent protein kinase, and a serine/proline-rich domain in between the doublecortin and the protein kinase domains, which mediates multiple protein-protein interactions. The microtubule-polymerizing activity of the encoded protein is independent of its protein kinase activity. The encoded protein is involved in several different cellular processes, including neuronal migration, retrograde transport, neuronal apoptosis and neurogenesis. This gene is up-regulated by brain-derived neurotrophic factor and associated with memory and general cognitive abilities. Multiple transcript variants generated by two alternative promoter usage and alternative splicing have been reported, but the full-length nature and biological validity of some variants have not been defined. These variants encode different isoforms, which are differentially expressed and have different kinase activities. [provided by RefSeq, Sep 2010]

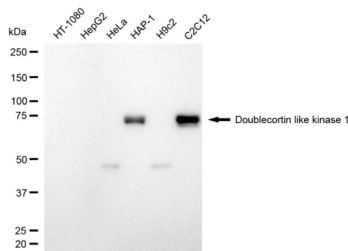
Research Area

Neuroscience

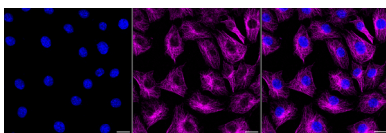
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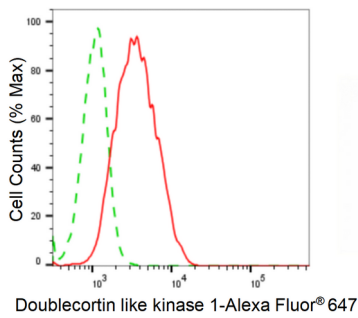
Western blotting analysis using doublecortin like kinase 1 antibody (KVA00741). Doublecortin like kinase 1 expression in wild-type (WT) and doublecortin like kinase 1 (DCLK1) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with doublecortin like kinase 1 antibody (KVA00741, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using doublecortin like kinase 1 antibody (KVA00741). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with doublecortin like kinase 1 antibody (KVA00741, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of C2C12 cells with Doublecortin like kinase 1 antibody (KVA00741, 1:1,000). Nuclei were stained blue with DAPI; Doublecortin like kinase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Flow cytometric analysis of doublecortin like kinase 1 expression in C2C12 cells using doublecortin like kinase 1 antibody (KVA00741, 1:2,000). Green, isotype control; red, doublecortin like kinase 1.