10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DCAMKL1 Antibody (monoclonal) (M02)

Mouse monoclonal antibody raised against a partial recombinant DCAMKL1.
Catalog # AT1714a

Product Information

Application	WB, IF
Primary Accession	O15075
Other Accession	NM_004734
Reactivity	Human, Mouse
Host	mouse
Clonality	monoclonal
Isotype	IgG2b Kappa
Clone Names	6F9
Calculated MW	82224

Additional Information

Gene ID	9201
Other Names	Serine/threonine-protein kinase DCLK1, Doublecortin domain-containing protein 3A, Doublecortin-like and CAM kinase-like 1, Doublecortin-like kinase 1, DCLK1, DCAMKL1, DCDC3A, KIAA0369
Target/Specificity	DCAMKL1 (NP_004725, 640 a.a. ~ 729 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IF~~1:50~200
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	DCAMKL1 Antibody (monoclonal) (M02) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

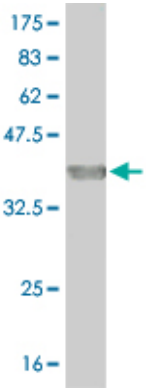
This gene encodes a member of the protein kinase superfamily and the doublecortin family. The protein encoded by this gene contains two N-terminal doublecortin domains, which bind microtubules and regulate microtubule polymerization, a C-terminal serine/threonine protein kinase domain, which shows substantial 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.

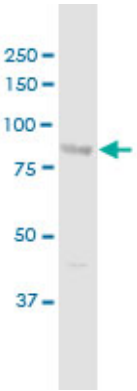
References

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.The doublecortin gene family and disorders of neuronal structure. Dijkmans TF, et al. Cent Nerv Syst Agents Med Chem, 2010 Mar. PMID 20236041.Silencing of the microtubule-associated proteins doublecortin-like and doublecortin-like kinase-long induces apoptosis in neuroblastoma cells. Verissimo CS, et al. Endocr Relat Cancer, 2010. PMID 20228126.Variants in doublecortin- and calmodulin kinase like 1, a gene up-regulated by BDNF, are associated with memory and general cognitive abilities. Le Hellard S, et al. PLoS One, 2009 Oct 21. PMID 19844571.A potential role for calcium / calmodulin-dependent protein kinase-related peptide in neuronal apoptosis: in vivo and in vitro evidence. Schenk GJ, et al. Eur J Neurosci, 2007 Dec. PMID 18052980.

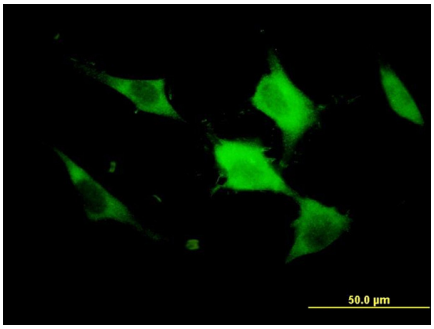
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (35.53 KDa) .



DCAMKL1 monoclonal antibody (M02), clone 6F9 Western Blot analysis of DCAMKL1 expression in NIH/3T3 ((Cat # AT1714a)



Immunofluorescence of monoclonal antibody to DCAMKL1 on NIH/3T3 cell. [antibody concentration 10 ug/ml]