

DCDC2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP54638

Product Information

Application WB, IHC-P, IHC-F, IF, ICC, E

Primary Accession
Reactivity
Rat, Bovine
Host
Rabbit
Clonality
Polyclonal
Calculated MW
52834
Physical State
Liquid

Immunogen KLH conjugated synthetic peptide derived from human DCDC2

Epitope Specificity 85-168/476 **Isotype** IgG

Purity affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SIMILARITY Contains 2 doublecortin domains.

DISEASE Defects in DCDC2 may be a cause of susceptibility to dyslexia type 2 (DYX2)

[MIM:600202]; also known as specific reading disability type 2. Dyslexia is a relatively common, complex cognitive disorder that affects 5% to 10% of school-aged children. The disorder is characterized by an impairment of reading performance despite adequate motivational, educational and intellectual opportunities and in the absence of sensory or neurological

disability.

Important Note This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

Background Descriptions The DCDC2 gene encodes the DCDC2 protein (Doublecortin-containing protein

2, RU2, RU2S) which contains two Doublecortin peptide domains similar to those in the Doublecortin gene. DCDC2 is transcribed as a "normal" gene, which results in a sense transcript (RU2S), but when it is transcribed in the opposite direction, a shorter antisense transcript (RU2AS), which is found in tumors, results. The DCDC2 protein demonstrates ubiquitous expression, whereas RU2AS expression is restricted to normal kidney, bladder, liver and testis, and to tumors of various histologic origins. The deduced DCDC2 protein contains 476 amino acids, while the RU2AS protein contains 84 residues. There is a significant association between dyslexia and several SNPs within

the DCDC2 gene.

Additional Information

Gene ID 51473

Other Names Doublecortin domain-containing protein 2, Protein RU2S, DCDC2, KIAA1154,

RU2

Target/Specificity Ubiquitously expressed. In brain, highly expressed in the entorhinal cortex,

inferior temporal cortex, medial temporal cortex, hypothalamus, amygdala

and hippocampus.

Dilution WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-50

0,ELISA=1:5000-10000

Format 0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name DCDC2

Synonyms KIAA1154, RU2

Function Protein that plays a role in the inhibition of canonical Wnt signaling pathway

(PubMed: <u>25557784</u>). May be involved in neuronal migration during

development of the cerebral neocortex (By similarity). Involved in the control of ciliogenesis and ciliary length (PubMed:<u>25601850</u>, PubMed:<u>27319779</u>).

Cellular Location Cell projection, cilium. Cytoplasm, cytoskeleton, cilium axoneme. Cell

projection, kinocilium {ECO:0000250 | UniProtKB:D3ZR10}. Cytoplasm, cytoskeleton {ECO:0000250 | UniProtKB:D3ZR10}. Note=Localizes to the ciliary axoneme and to mitotic spindle fibers in a cell-cycle-dependent manner

Tissue Location Ubiquitously expressed. In brain, highly expressed in the entorhinal cortex,

inferior temporal cortex, medial temporal cortex, hypothalamus, amygdala and hippocampus (PubMed:10601354, PubMed:16278297). Expressed in liver by cholangiocytes, the epithelial cells of the bile ducts (at protein level)

(PubMed:27319779)

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