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DCX Antibody (S128) Blocking Peptide

Synthetic peptide
Catalog # BP2768a

Specification

DCX Antibody (S128) Blocking Peptide - Product Information

Primary Accession O43602

DCX Antibody (S128) Blocking Peptide - Additional Information

Gene ID 1641

Other Names
Neuronal migration protein doublecortin, Doublin, Lissencephalin-X, Lis-X, DCX, DBCN, LISX

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2768a was selected from the S128 region of human DCX. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DCX Antibody (S128) Blocking Peptide - Protein Information

Name DCX

Synonyms DBCN, LISX

Function
Microtubule-associated protein required for initial steps of neuronal dispersion and cortex lamination during cerebral cortex development. May act by competing with the putative neuronal protein kinase DCLK1 in binding to a target protein. May in that way participate in a signaling pathway that is crucial for neuronal interaction before and during migration, possibly as part of a calcium ion-dependent signal transduction pathway. May be part with PAFAH1B1/LIS-1 of overlapping, but distinct, signaling pathways that promote neuronal migration.

Cellular Location
Cytoplasm. Cell projection, neuron projection {ECO:0000250|UniProtKB:Q9ESI7}. Note=Localizes at neurite tips. {ECO:0000250|UniProtKB:Q9ESI7}

Tissue Location
Highly expressed in neuronal cells of fetal brain (in the majority of cells of the cortical plate, intermediate zone and ventricular zone), but not expressed in other fetal tissues. In the adult, highly expressed in the brain frontal lobe, but very low expression in other regions of brain, and not detected in heart, placenta, lung, liver, skeletal muscles, kidney and pancreas

DCX Antibody (S128) Blocking Peptide - Protocols

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

- Blocking Peptides

DCX Antibody (S128) Blocking Peptide - Images

DCX Antibody (S128) Blocking Peptide - Background

In the developing cortex, cortical neurons must migrate over long distances to reach the site of their final differentiation. DCX is a cytoplasmic protein which appears to direct neuronal migration by regulating the organization and stability of microtubules. It contains two doublecortin domains, which bind microtubules. In addition, this protein interacts with LIS1, the regulatory gamma subunit of platelet activating factor acetylhydrolase, and this interaction is important to proper microtubule function in the developing cortex. Mutations in the gene encoding DCX are a cause of X-linked lissencephaly.

DCX Antibody (S128) Blocking Peptide - References

Leger,P.L., Neurogenetics (2008)Zhang,Y., Biochem. Biophys. Res. Commun. 363 (3), 694-700 (2007)