



# Doublecortin (phospho Ser339) Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-12663
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat;Pig
<b>Applications</b>	IHC;IF;ELISA
<b>Gene Name</b>	DCX
<b>Protein Name</b>	Neuronal migration protein doublecortin
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human Doublecortin around the phosphorylation site of Ser376. AA range:330-365
<b>Specificity</b>	Phospho-Doublecortin (S339) Polyclonal Antibody detects endogenous levels of Doublecortin protein only when phosphorylated at S339.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	IHC: 1/100 - 1/300. ELISA: 1/5000.. IF 1:50-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	DCX; DBCN; LISX; Neuronal migration protein doublecortin; Doublin; Lissencephalin-X; Lis-X
<b>Observed Band</b>	
<b>Cell Pathway</b>	Cytoplasm . Cell projection, neuron projection . Localizes at neurite tips. .
<b>Tissue Specificity</b>	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.
<b>Function</b>	alternative products:Isoform LIS-XA possesses an alternative exon in 5' and is then translated from an upstream initiation codon. Isoform LIS-XB, isoform LIS-XC and isoform LIS-XD translation starts at the downstream initiation codon, leading to the absence of the 81 first amino acids. Isoform LIS-XC and isoform LIS-XD differ from isoform LIS-XB by a five amino acids and a one amino acid-insertion respectively,disease:A chromosomal aberration involving DCX is found in lissencephaly. Translocation t(X;2)(q22.3;p25.1),disease:Defects in DCX are the cause of lissencephaly X-linked type 1 (LISX1) [MIM:300067]; also called X-LIS or LIS. LISX1 is a classic lissencephaly characterized by mental retardation and seizures that are more severe in male patients. Affected boys show an abnormally thick cortex with absent or severely reduced gyri. Clinical



manifestations include feeding problems, abno

## Background

This gene encodes a member of the doublecortin family. The protein encoded by this gene is a cytoplasmic protein and contains two doublecortin domains, which bind microtubules. In the developing cortex, cortical neurons must migrate over long distances to reach the site of their final differentiation. The encoded protein appears to direct neuronal migration by regulating the organization and stability of microtubules. In addition, the encoded 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 this gene cause abnormal migration of neurons during development and disrupt the layering of the cortex, leading to epilepsy, mental retardation, subcortical band heterotopia ("double cortex" syndrome) in females and lissencephaly ("smooth brain")

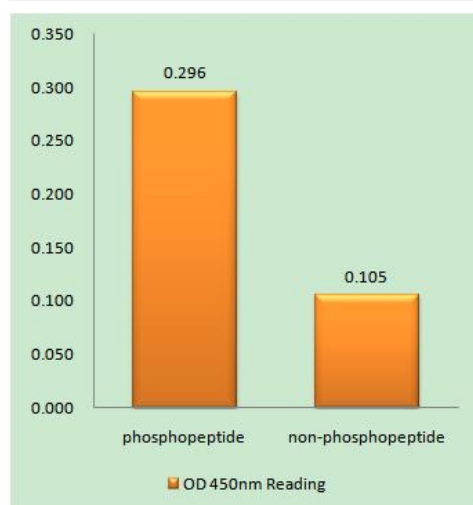
## matters needing attention

Avoid repeated freezing and thawing!

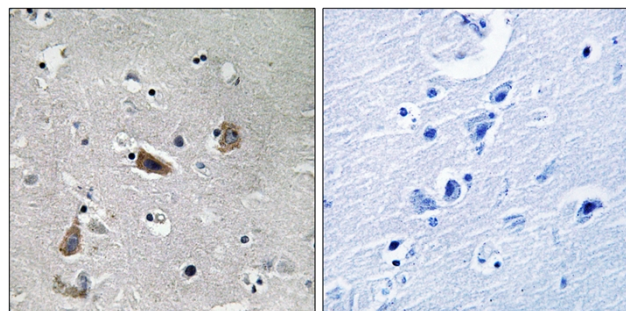
## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

## Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Doublecortin (Phospho-Ser376) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using Doublecortin (Phospho-Ser376) Antibody. The picture on the right is blocked with the phosphopeptide.