

Product datasheet

Human Doublecortin peptide ab19804

2 References

Overview

Product name Human Doublecortin peptide

Description

Nature Synthetic

Amino Acid Sequence

Accession [O43602](#)

Species Human

Specifications

Our [Abpromise guarantee](#) covers the use of **ab19804** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications Blocking - Blocking peptide for Anti-Doublecortin antibody ([ab18723](#)), Anti-Doublecortin antibody - Neuronal Marker ([ab77450](#))

Purity 70 - 90% by HPLC.

Form Liquid

Additional notes

- First try to dissolve a small amount of peptide in either water or buffer. The more charged residues on a peptide, the more soluble it is in aqueous solutions.
- If the peptide doesn't dissolve try an organic solvent e.g. DMSO, then dilute using water or buffer.
- Consider that any solvent used must be compatible with your assay. If a peptide does not dissolve and you need to recover it, lyophilise to remove the solvent.
- Gentle warming and sonication can effectively aid peptide solubilisation. If the solution is cloudy or has gelled the peptide may be in suspension rather than solubilised.
- Peptides containing cysteine are easily oxidised, so should be prepared in solution just prior to use.

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

General Info

Function	Seems to be required for initial steps of neuronal dispersion and cortex lamination during cerebral cortex development. May act by competing with the putative neuronal protein kinase DCAMKL1 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 LIS-1 of an overlapping, but distinct, signaling pathways that promote neuronal migration.
Tissue specificity	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.
Involvement in disease	<p>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, abnormal muscular tone, seizures and severe to profound psychomotor retardation. Female patients display a less severe phenotype referred to as 'doublecortex'.</p> <p>Defects in DCX are the cause of subcortical band heterotopia X-linked (SBHX) [MIM:300067]; also known as double cortex or subcortical laminar heterotopia (SCLH). SBHX is a mild brain malformation of the lissencephaly spectrum. It is characterized by bilateral and symmetric plates or bands of gray matter found in the central white matter between the cortex and cerebral ventricles, cerebral convolutions usually appearing normal.</p> <p>Note=A chromosomal aberration involving DCX is found in lissencephaly. Translocation t(X;2)(q22.3;p25.1).</p>
Sequence similarities	Contains 2 doublecortin domains.
Cellular localization	Cytoplasm.

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