

DESCRIPTION

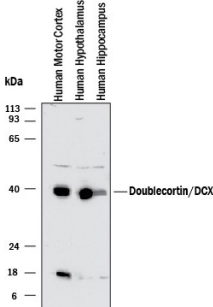
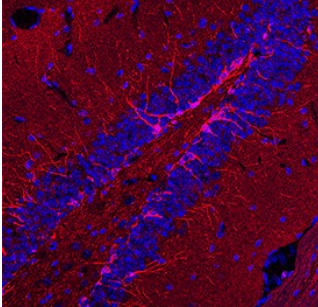
Species Reactivity	Human/Mouse
Specificity	Detects human Doublecortin/DCX in direct ELISAs and Western blots. Detects mouse Doublecortin/DCX in immunohistochemistry.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Doublecortin/DCX Met116-Thr293 Accession # O43602
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

DATA

<p>Western Blot</p> 	<p>Detection of Human Doublecortin/DCX by Western Blot. Western blot shows lysates of human motor cortex tissue, human hypothalamus tissue, and human hippocampus tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human/Mouse Doublecortin/DCX Antigen Affinity-purified Polyclonal Antibody (Catalog # AF10025) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Doublecortin/DCX at approximately 40 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunohistochemistry</p>  <p>Doublecortin/DCX in Mouse Brain. Doublecortin/DCX was detected in perfusion fixed frozen sections of mouse brain (hippocampus) using Sheep Anti-Human/Mouse Doublecortin/DCX Antigen Affinity-purified Polyclonal Antibody (Catalog # AF10025) at 8 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm in neurons. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Doublecortin (DCX) is a 365 aminoacids, 40 kDa microtubule-associated phosphoprotein (MAP) encoded by the DCX gene. DCX is an essential factor in neurogenesis, modulating, stabilizing and stimulating polymerization of microtubules (MTs) to ensure effective migration of neurons of the central and peripheral nervous system during embryonic and postnatal development. Mutations in this protein impairs neuronal migration leading to several pathological conditions.

DCX is very conserved across species. Human and non-human primates DCX proteins are 98-99% identical at the aminoacid level, and 100% identical at the sequences used for immunogen of AF10025; human, mouse and rat DCX aminoacid sequences are 98% identical.