

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DISC1 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human DISC1 Lys101-Arg260 Accession # Q9NRI5
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.

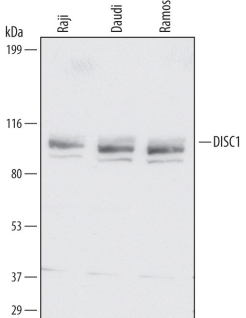
APPLICATIONS

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	5-15 µg/mL	See Below

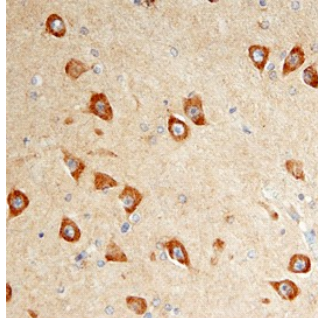
DATA

Western Blot



Detection of Human DISC1 by Western Blot. Western blot shows lysates of Raji human Burkitt's lymphoma cell line, Daudi human Burkitt's lymphoma cell line, and Ramos human Burkitt's lymphoma cell line. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human DISC1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6699) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for DISC1 at approximately 100-105 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



DISC1 in Human Brain. DISC1 was detected in immersion fixed paraffin-embedded sections of human brain (hippocampus) using Sheep Anti-Human DISC1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6699) at 10 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cytoplasm. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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

DISC1 (Disrupted in Schizophrenia 1) is a 100-105 kDa cytoplasmic and mitochondrial protein that belongs to no known molecular family. It is widely expressed, and appears to have multiple interaction partners, among which are NDEL1, α -tubulin, TRAF3IP1 and GSK-3 β . DISC1 is of particular interest in the brain where it appears to play a role in both neuronal proliferation and migration. Regarding proliferation, DISC1 inhibits GSK-3 β activity, resulting in neural progenitor cell proliferation without differentiation. With respect to migration, DISC1 promotes embryonic subventricular neuron migration while inhibiting widespread adult neuronal migration from the hippocampal subgranular layer. Human DISC1 is 854 amino acids (aa) in length. It contains an N-terminal globular domain (aa 1-346) plus four coiled-coil regions (aa 366-830). DISC1 is phosphorylated and forms homodimers. There are multiple isoforms. Among them is a 65-70 kDa form that shows an 18 aa substitution for aa 661-854, a 48 kDa form that contains a 20 aa substitution for aa 350-854, a 61-64 kDa form that possesses a seven aa substitution for aa 545-854, and a 90 kDa form that contains a deletion of aa 748-769. Over aa 101-260, human DISC1 shares 44% aa identity with mouse DISC1.