

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Neudessin in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 737130
Purification	Protein A or G purified from ascites
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Neudessin Gly32-Phe172 Accession # Q9UMX5
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.

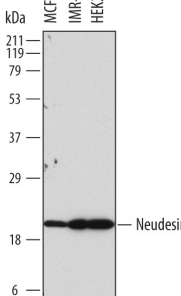
APPLICATIONS

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	2 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

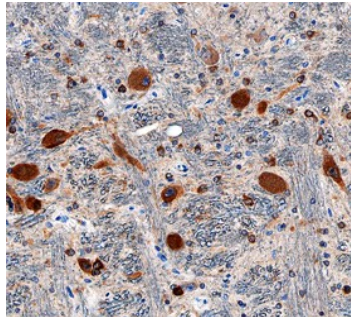
DATA

Western Blot



Detection of Human Neudessin by Western Blot. Western blot shows lysates of MCF-7 human breast cancer cell line, IMR-32 human neuroblastoma cell line, and HEK293 human embryonic kidney cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human Neudessin Monoclonal Antibody (Catalog # MAB6714) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Neudessin at approximately 20 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



Neudessin in Human Brain. Neudessin was detected in immersion fixed paraffin-embedded sections of human brain (medulla) using Mouse Anti-Human Neudessin Monoclonal Antibody (Catalog # MAB6714) at 15 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-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm of neurons. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 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

Neudessin (Neuron-derived neurotrophic secreted protein; also CIR2 and SPUF) is a secreted, 20-21 kDa member of the MAPR (membrane-associated progesterone receptor) subfamily, cytochrome b5 family of molecules. It is expressed by CNS neuronal progenitors and neurons, plus preadipocytes in white adipose tissue. Regarding activity, it promotes neuronal differentiation with limited proliferation and serves as a neuron survival factor. By contrast, it inhibits both astrocyte and adipocyte differentiation. Mature human Neudessin is 141 amino acids (aa) in length (aa 32-172). It contains one cytochrome b5-like heme-binding domain (aa 44-129) and an acetylated lysine residue at Lys136. The heme-binding domain does bind heme, and this accounts for 5-6 kDa of its circulating molecular weight. The presence of a heme moiety is necessary for activity. Mature human Neudessin shares 97% aa identity with mature mouse Neudessin