Human N-Cadherin Propeptide Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF1388

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human N-Cadherin Propeptide in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) Cadherin-8, rhCadherin-11, and rhR-Cadherin is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human N-Cadherin Propeptide Ser26-Arg159 Accession # P19022
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 as a 0.2 µm filtered solution in PBS.

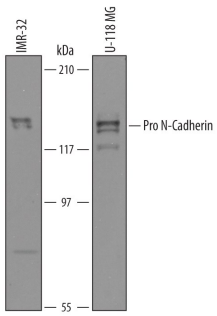
APPLICATIONS

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

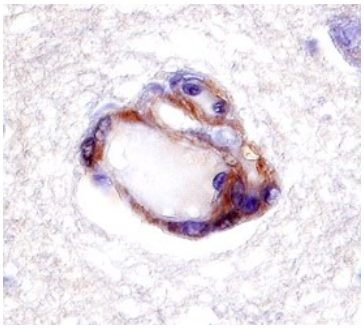
DATA

Western Blot



Detection of Human Pro-N-Cadherin by Western Blot. Western blot shows lysates of IMR-32 human neuroblastoma cell line and U-118-MG human glioblastoma/astrocytoma cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human N-Cadherin Propeptide Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1388) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Pro-N-Cadherin was detected at approximately 130 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



N-Cadherin in Human Brain. N-Cadherin was detected in immersion fixed paraffin-embedded sections of human brain (hippocampus) using 15 µg/mL Sheep Anti-Human N-Cadherin Propeptide Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1388) overnight at 4 °C. Tissue was stained with the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific labeling was localized to endothelial cells in a capillary. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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.** ● 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

N-Cadherin (Neural Cadherin; also CD325 and Cadherin-2) is a 130-135 kDa member of the "classical" (or type I) cadherin subfamily, cadherin superfamily of proteins. It is expressed on multiple cell types, including neurons, fibroblasts, Schwann cells, endothelial cells and hepatic stellate cells. N-Cadherin mediates homotypic binding, either in cis (same cell) or trans (adjacent cell). proN-Cadherin is expressed as an 881 amino acid (aa) type I transmembrane glycoprotein. It may be initially inserted into the ER, where the 15-20 kDa prodomain (aa 26-159) is cleaved by proprotein convertase, and the mature molecule is transported to the surface. Alternatively, on neurons, proN-Cadherin may first appear on the surface, with cleavage occurring at the time of synaptogenesis. Cleavage appears necessary for homophilic interaction as presence of the prodomain is suggested to negatively regulate oligomer formation. Over the entire prodomain, the human N-Cadherin proregion shares 87% aa identity with the mouse N-Cadherin proregion.

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