

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat N-Cadherin in Western blots. In direct ELISA, less than 10% cross-reactivity with recombinant human (rh) E-Cadherin, and rhR-Cadherin is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human N-Cadherin Asp160-Ala724 Accession # P19022
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
ELISA	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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). pro-N-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 (aa 160-906) is transported to the surface. Mature N-Cadherin contains a 565 aa extracellular region (aa 160-724) that possesses five cadherin domains (aa 160-714), and a 161 aa cytoplasmic tail that undergoes phosphorylation at Tyr785. There is one splice variant that contains a 10 aa substitution for aa 839-906. Over aa 160-724, human N Cadherin shares 98% aa identity with mouse N-Cadherin.

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