Anti-N Cadherin Antibody [SY02-46]

ET1607-37

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Tissue, IHC-P, FC, IHC-Fr
Molecular Wt:	Predicted band size: 100 kDa
Clone number:	SY02-46

Description: Cadherins comprise a family of Ca2+-dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of tissue structure and morphogenesis. The classical cadherins, E-, N- and P-cadherin, consist of large extracellular domains characterized by a series of five homologous NH2 terminal repeats. The most distal of these cadherins is thought to be responsible for binding specificity, transmembrane domains and carboxy-terminal intracellular domains. The relatively short intracellular domains interact with a variety of cytoplasmic proteins, such as b-catenin, to regulate cadherin function. Members of this family of adhesion proteins include rat cadherin K (and its human homolog, cadherin-6), R-cadherin, B-cadherin, E/P cadherin and cadherin-5.

Immunogen: Synthetic peptide within Human N Cadherin aa 161-210 / 906.

Positive control: 293T cell lysate, A549 cell lysate, HeLa cell lysate, A-172 cell lysate, MCF7 cell lysate, C2C12 cell lysate, C6 cell lysate, mouse liver tissue, rat liver tissue, human liver carcinoma tissue, human liver tissue, mouse heart tissue, Hela.

Subcellular location: Cell membrane.

Database links: SwissProt P19022 Human | P15116 Mouse | Q9Z1Y3 Rat

Recommended Dilutions:

WB	1:1,000-1:5,000
IF-Tissue	1:50-1:200
IHC-P	1:50-1:1,000
FC	1:50-1:100
IHC-Fr	1:500

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% SodiumAzide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

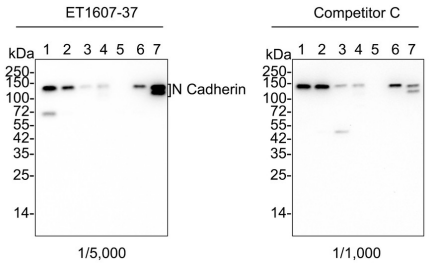

Fig1: Western blot analysis of N Cadherin on different lysates with Rabbit anti-N Cadherin antibody (ET1607-37) at 1/5,000 dilution and competitor's antibody at 1/1,000 dilution.

Lane 1: 293T cell lysate
Lane 2: A549 cell lysate
Lane 3: HeLa cell lysate
Lane 4: A-172 cell lysate
Lane 5: MCF7 cell lysate (negative)
Lane 6: C2C12 cell lysate
Lane 7: C6 cell lysate

Lysates/proteins at 15 µg/Lane.

Predicted band size: 100 kDa
Observed band size: 140-150 kDa

Exposure time: 2 minutes 6 seconds;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1607-37) at 1/5,000 dilution and competitor's antibody at 1/1,000 dilution were used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

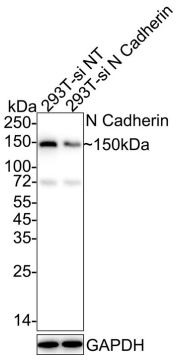

Fig2: Western blot analysis of N Cadherin on different lysates with Rabbit anti-N Cadherin antibody (ET1607-37) at 1/5,000 dilution.

Lane 1: 293T-si NT cell lysate (10 µg/Lane)
Lane 2: 293T-si N Cadherin cell lysate (10 µg/Lane)

Predicted band size: 100 kDa
Observed band size: 150 kDa

Exposure time: 1 minute 46 seconds;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1607-37) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

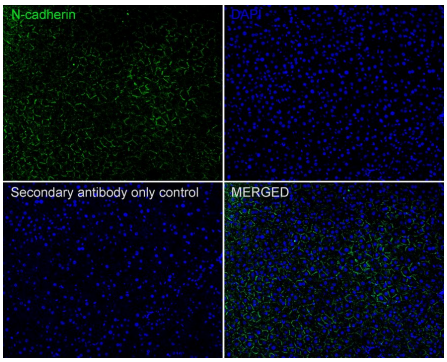

Fig3: Immunofluorescence analysis of frozen mouse liver tissue with Rabbit anti-N Cadherin antibody (ET1607-37) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET1607-37, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

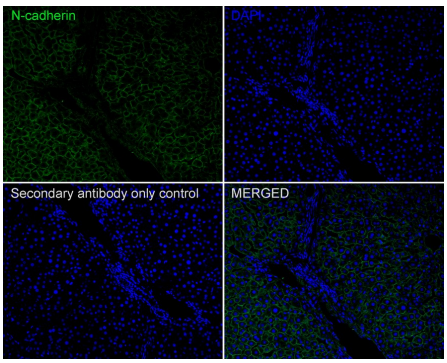

Fig4: Immunofluorescence analysis of frozen rat liver tissue with Rabbit anti-N Cadherin antibody (ET1607-37) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET1607-37, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

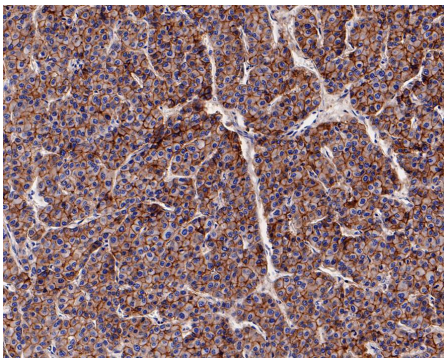

Fig5: Immunohistochemical analysis of paraffin-embedded human liver carcinoma tissue with Rabbit anti-N Cadherin antibody (ET1607-37) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1607-37) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

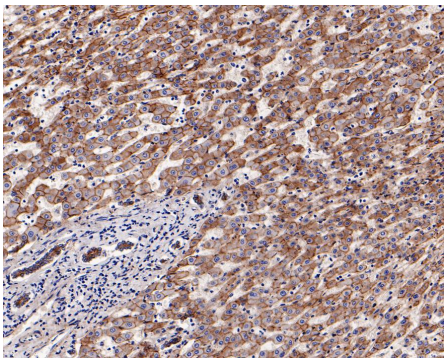

Fig6: Immunohistochemical analysis of paraffin-embedded human liver tissue with Rabbit anti-N Cadherin antibody (ET1607-37) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1607-37) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

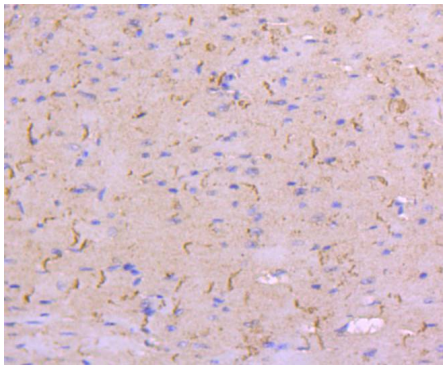

Fig7: Immunohistochemical analysis of paraffin-embedded mouse heart tissue using anti-N Cadherin antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1607-37, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

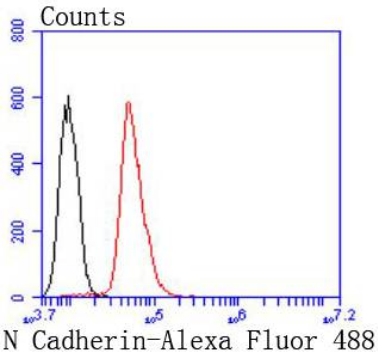

Fig8: Flow cytometric analysis of N Cadherin was done on Hela cells. The cells were fixed, permeabilized and stained with the primary antibody (ET1607-37, 1/50) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Rabbit IgG Secondary antibody at 1/1000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. You A et al. Metformin sensitizes sorafenib to inhibit postoperative recurrence and metastasis of hepatocellular carcinoma in orthotopic mouse models. J Hematol Oncol 9:20 (2016).
2. Fischer KD et al. Vitamin D Supplementation Reduces Induction of Epithelial-Mesenchymal Transition in Allergen Sensitized and Challenged Mice. PLoS One 11:e0149180 (2016).