Anti-NCAM1 / CD56 Antibody

R1204-1

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell
Molecular Wt:	Predicted band size: 95 kDa

Description: Neural Cell Adhesion Molecule (NCAM, also the cluster of differentiation CD56) is a homophilic binding glycoprotein expressed on the surface of neurons, glia, skeletal muscle and natural killer cells. NCAM has been implicated as having a role in cell–cell adhesion, neurite outgrowth, synaptic plasticity, and learning and memory. NCAM is a glycoprotein of Immunoglobulin (Ig) superfamily. The three main isoforms of NCAM vary only in their cytoplasmic domain: NCAM-120kDa (GPI anchored), NCAM-140kDa (short cytoplasmic domain) and NCAM-180kDa (long cytoplasmic domain).

Immunogen: Synthetic peptide corresponding to Mouse NCAM1 aa 101-150 / 1,115 mouse.

Positive control: SH-SY5Y cell lysate, NCCIT cell lysate, F9 cell lysate, C6 cell lysate, mouse brain tissue lysate, rat brain tissue lysate, SH-SY5Y, N2A.

Subcellular location: Cell membrane, secreted

Database links: SwissProt: P13591 Human | P13595 Mouse | P13596 Rat

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:50

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Immunogen affinity purified.

Images

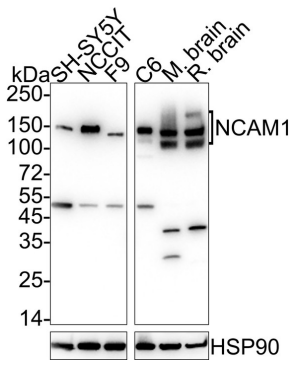

Fig1: Western blot analysis of NCAM1 / CD56 on different lysates with Rabbit anti-NCAM1 / CD56 antibody (R1204-1) at 1/1,000 dilution.

Lane 1: SH-SY5Y cell lysate (20 µg/Lane)
Lane 2: NCCIT cell lysate (20 µg/Lane)
Lane 3: F9 cell lysate (20 µg/Lane)
Lane 4: C6 cell lysate (20 µg/Lane)
Lane 5: Mouse brain tissue lysate (40 µg/Lane)
Lane 6: Rat brain tissue lysate (40 µg/Lane)

Predicted band size: 95 kDa
Observed band size: 120-180 kDa

Exposure time: 10 seconds; ECL: K1801;

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 (R1204-1) at 1/1,000 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.

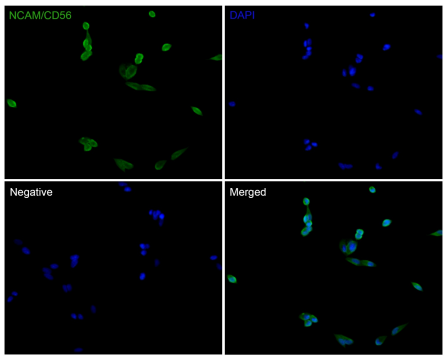

Fig2: Immunocytochemistry analysis of SH-SY5Y cells labeling NCAM1 / CD56 with Rabbit anti-NCAM1 / CD56 antibody (R1204-1) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 ℃, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-NCAM1 / CD56 antibody (R1204-1) at 1/50 dilution in 2% negative goat serum overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

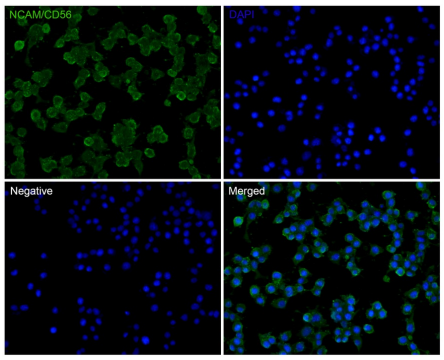

Fig3: Immunocytochemistry analysis of N2A cells labeling NCAM1 / CD56 with Rabbit anti-NCAM1 / CD56 antibody (R1204-1) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 ℃, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-NCAM1 / CD56 antibody (R1204-1) at 1/50 dilution in 2% negative goat serum overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Background References

1. "Molecular and functional analysis of human natural killer cell-associated neural cell adhesion molecule (N-CAM/CD56)."Lanier L.L., Chang C., Azuma M., Ruitenberg J.J., Hemperly J.J., Phillips J.H.J. Immunol. 146:4421-4426(1991)
2. "Phosphoproteomic analysis of synaptosomes from human cerebral cortex."DeGiorgis J.A., Jaffe H., Moreira J.E., Carlotti C.G. Jr., Leite J.P., Pant H.C., Dosemeci A.J. Proteome Res. 4:306-315(2005)