

CD56 Recombinant Polyclonal Antibody (3HCLC)

Product Details

Size	100 µg
Species Reactivity	Human, Rat
Published Species	Pig, Human
Host/Isotype	Rabbit / IgG
Expression system	Expi293
Class	Recombinant Polyclonal
Type	Antibody
Clone	3HCLC
Conjugate	Unconjugated
Immunogen	Recombinant protein corresponding to amino acids 20-170 of human NCAM
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS
Contains	0.09% sodium azide
Storage conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.
RRID	AB_2532702

Applications	Tested Dilution	Publications
Western Blot (WB)	0.5-1 µg/mL	-
Immunohistochemistry (IHC)	-	1 Publication
Immunocytochemistry (ICC/IF)	1-2 µg	1 Publication
Flow Cytometry (Flow)	2-4 µg/1x10 ⁶ cells	-

Product Specific Information

This antibody is predicted to react with bovine, canine, chimpanzee, feline, non-human primate and rabbit based on sequence homology.

Recombinant rabbit polyclonal antibodies are unique offerings from Thermo Fisher Scientific. They are comprised of a selection of multiple different recombinant monoclonal antibodies, providing the best of both worlds - the sensitivity of polyclonal antibodies with the specificity of monoclonal antibodies - all delivered with the consistency only found in a recombinant antibody. While functionally the same as a polyclonal antibody - recognizing multiple epitope sites on the target and producing higher detection sensitivity for low abundance targets - a recombinant rabbit polyclonal antibody has a known mixture of light and heavy chains. The exact population can be produced in every lot, circumventing the biological variability typically associated with polyclonal antibody production.

Product Images For CD56 Recombinant Polyclonal Antibody (3HCLC)

CD56 Antibody (710388) in WB

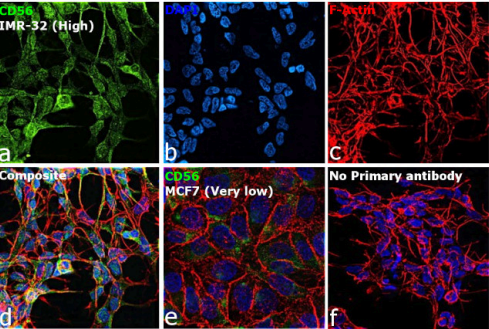
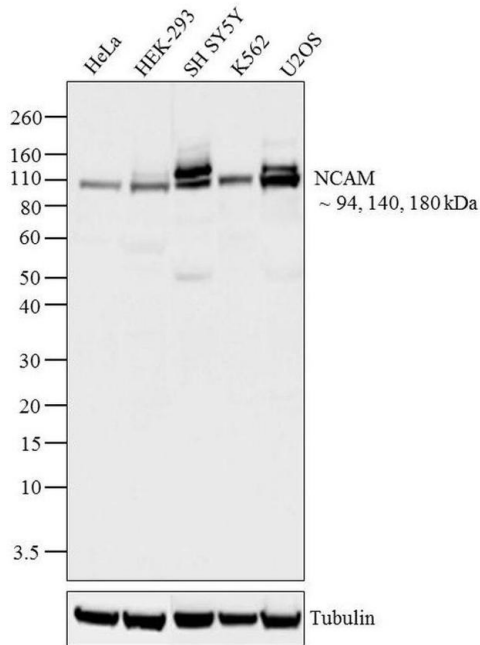
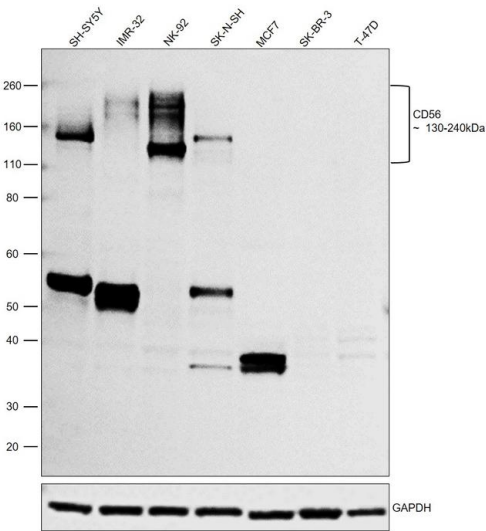
Western blot was performed using Anti-CD56 Recombinant Polyclonal Antibody (3HCLC) (Product # 710388) and bands in the range of 130-240 kDa corresponding to Neural cell adhesion molecule 1 were observed. Membrane enriched extracts (30 µg lysate) of SH-SY5Y (Lane 1), IMR-32 (Lane 2), NK-92 (Lane 3), SK-N-SH (Lane 4), MCF7 (Lane 5), SK-BR-3 (Lane 6) and T-47D (Lane 7) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (0.5 µg/mL) and detected by chemiluminescence with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036, 1:20,000 using the iBright™ FL1500 Imaging System (Product # A44115). Chemiluminescent detection was performed using SuperSignal™ West Atto Ultimate Sensitivity Substrate (Product # A38556). Relative expression was observed between SH-SY5Y, IMR-32, NK-92, SK-N-SH and breast cancer cell lines such as MCF7, SK-BR-3 and T-47D as expected (DOI: 10.1038/s41598-019-45377-8).

CD56 Antibody (710388) in WB

Western blot analysis of NCAM was performed by loading 30 µg of HeLa (lane1), HEK-293 (lane2), SH-SY5Y (lane3), K562 (lane4) and U2OS (lane5) using Novex®NuPAGE® 4-12 % Bis-Tris gel (Product # NP0321BOX), XCell SureLock Electrophoresis System (Product # EI0002), Novex® Sharp Pre-Stained Protein Standard (Product # LC5800). Proteins were transferred to a PVDF membrane and blocked with 5 % skim milk for 1 hour at room temperature. NCAM was detected at ~94, 140, 180 kDa using NCAM Recombinant Rabbit Polyclonal Antibody (Product # 710388) at 0.5 µg-1 µg/mL in 2.5 % skim milk at 4°C overnight on a rocking platform. Goat anti-Rabbit IgG-HRP Secondary Antibody (Product # G-21234) at 1:5000 dilution was used and chemiluminescent detection was performed using Pierce™ ECL Western blotting Substrate (Product # 32106).

CD56 Antibody (710388) in ICC/IF

Immunofluorescence analysis of Neural cell adhesion molecule 1 was performed using 70% confluent log phase IMR-32 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes and blocked with 2% BSA for 1 hour at room temperature. The cells were labeled with CD56 Recombinant Polyclonal Antibody (3HCLC) (Product # 710388) at 1 ug/ml in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Donkey anti-Rabbit IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32790), (1:2000), for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b: Blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing Plasma membrane localization. Panel e represents the merged image of MCF7 cells showing very low expression of CD56 as expected (DOI: 10.1038/s41598-019-45377-8). Panel f represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



2 References

Immunohistochemistry (1)

iScience	Year 2022
Targeting myeloid suppressive cells revives cytotoxic anti-tumor responses in pancreatic cancer.	Species Human
"710388 was used in Immunohistochemistry-immunofluorescence to demonstrate that expression of the scavenger receptor MARCO correlates with poor prognosis and a lymphocyte-excluding tumor phenotype."	
Authors: Sarhan D,Eisinger S,He F,Bergsland M,Pelicano C,Driescher C,Westberg K,Benitez II,Humoud R,Palano G,Li S,Carannante V,Muhr J,Önfelt B,Schlisio S,Ravetch JV,Heuchel R,Löhr MJ,Karlsson MCI	

Immunocytochemistry (1)

Food science of animal resources	Year 2020
Purification of Pig Muscle Stem Cells Using Magnetic-Activated Cell Sorting (MACS) Based on the Expression of Cluster of Differentiation 29 (CD29).	Species Pig
"710388 was used in Immunocytochemistry-immunoflourescence to optimize the method for the enrichment of pig muscle stem cells and develop a simple cell sorting method based on a single antibody to the CD29 protein."	
Authors: Choi KH,Kim M,Yoon JW,Jeong J,Ryu M,Jo C,Lee CK	

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