

CD20 Monoclonal Antibody (L26), Alexa Fluor™ 488, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Cynomolgus monkey, Human, Rhesus monkey
Published Species	Human
Host/Isotype	Mouse / IgG2a, kappa
Recommended Isotype Control	Mouse IgG2a kappa Isotype Control (eBM2a), Alexa Fluor™ 488, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	L26
Conjugate	Alexa Fluor™ 488
Excitation/Emission Max	499/520 nm
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_10734358

Applications	Tested Dilution	Publications
Western Blot (WB)	1 µg/mL	-
Immunohistochemistry (IHC)	1:100	5 Publications
Immunohistochemistry (Paraffin) (IHC (P))	5-10 µg/mL	-
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	10 µg/mL	-
Immunocytochemistry (ICC/IF)	10 µg/mL	3 Publications
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

Description: The monoclonal antibody L26 recognizes human CD20, a two transmembrane spanning protein found on precursor and mature B lymphocytes. Expression is lost upon differentiation to plasma cells. The levels of CD20 are critical in evaluating malignant B lymphocytes including Non-Hodgkin's Lymphoma, and Acute B cell, Chronic Lymphocytic and Hairy-Cell Leukemias. CD20 plays a role in B cell differentiation and activation. The structure of the protein shows a small extracellular loop with the carboxy and amino termini in the cytoplasmic compartment. The L26 antibody recognizes an epitope in the cytoplasmic domain and therefore requires permeabilization of the tissue for staining applications. Unlike many anti-CD20 antibodies that recognize the extracellular domain, the epitope recognized by L26 will not be blocked by therapeutic antibodies to CD20, like Rituximab.

Applications Reported: This L26 antibody has been reported for use in immunohistochemical staining of frozen tissue sections,

and immunohistochemical staining of formalin-fixed paraffin embedded tissue sections.

Applications Tested: This L26 antibody has been tested by immunohistochemical staining of human FFPE tonsil with low pH antigen retrieval (cat. 00-4955) and can be used at less than or equal to 10 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

It has been reported that the L26 antibody when used without antigen retrieval will detect a subpopulation of CD20-positive cells. The L26 antibody can be used with high pH antigen retrieval, although the quality of the staining and cell morphology is not optimal. This product has been optimized for use in immunohistochemistry. We do not recommend its use in flow cytometry. For flow cytometry applications, please refer to clone 2H7, cat. 11-0209.

Excitation: 488 nm; **Emission:** 519 nm; **Laser:** Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

CD20 Antibody (53-0202-82) in WB

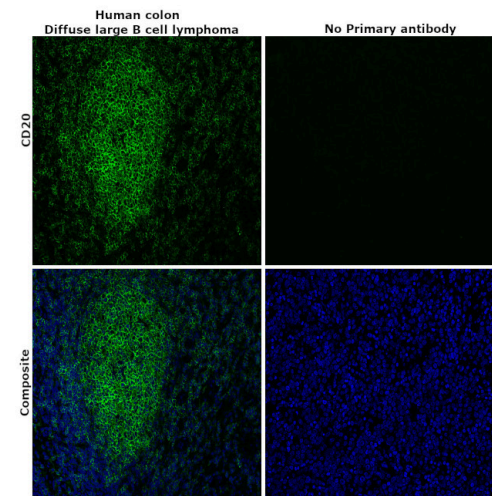
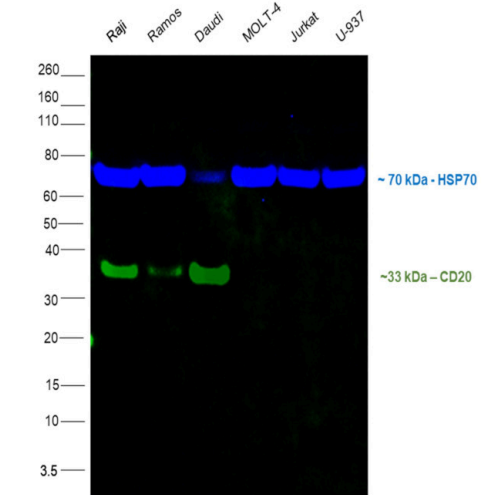
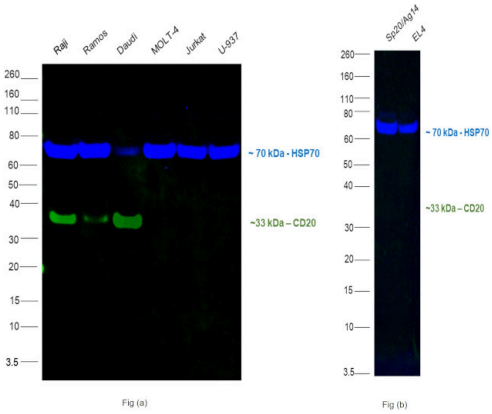
Multiplexed fluorescent western blot was performed using Anti-CD20 Monoclonal Antibody (L26), Alexa Fluor™ 488, eBioscience™ (Product # 53-0202-82) and a 33 kDa band corresponding to CD20 was observed in Raji, Ramos and Daudi and not in any other cell lines. Membrane enriched extracts (30 µg lysate) of human cell lines Raji (Lane 1), Ramos (Lane 2), Daudi (Lane 3), MOLT-4 (Lane 4), Jurkat (Lane 5) and U-937 (Lane 6) as seen in Fig (a), and mouse cell lines Sp20/Ag14 (Lane 1) and EL4 (Lane2) as seen in Fig (b) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX), 12 well. Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blots were probed with Anti-CD20 Monoclonal Antibody (L26), Alexa Fluor™ 488, eBioscience™ (Product # 53-0202-82, 1 µg/mL) and HSP70 Polyclonal Antibody (Product # PA5-28003, 1:4000 dilution). Donkey anti-Rabbit IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ Plus 800 (Product # A32808, 1:10000 dilution), secondary antibody was used for detection of HSP70. Fluorescent detection was performed using iBright FL1500 (Product # A44115). Mouse reactivity was not observed.

CD20 Antibody (53-0202-82)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell lines tested owing to their inherent genetic constitution. Relative expression of CD20 was observed in Raji, Ramos and Daudi as compared to no expression in MOLT-4, Jurkat and U-937 using Anti-CD20 Monoclonal Antibody (L26), Alexa Fluor™ 488, eBioscience™ (Product # 53-0202-82) in Western Blot. {RE}

CD20 Antibody (53-0202-82) in IHC (P)

Immunohistochemical analysis of CD20 was performed using formalin-fixed paraffin-embedded human colon (diffuse large B cell lymphoma) tissue sections. To expose the target protein, heat-induced epitope retrieval was performed on de-paraffinized sections using eBioscience™ IHC Antigen Retrieval Solution - Low pH (10X) (Product # 00-4955-58) diluted to 1X solution in water in a decloaking chamber at 110 degree Celsius for 15 minutes. Following antigen retrieval, the sections were blocked with 2% normal goat serum in 1X PBS for 45 minutes at room temperature and then probed with or without CD20 Monoclonal Antibody (L26), Alexa Fluor™ 488, eBioscience™ (Product # 53-0202-82) at 5 µg/mL dilution in 0.1% normal goat serum overnight at 4 degree Celsius in a humidified chamber. ReadyProbes™ Tissue Autofluorescence Quenching Kit (Product # R37630) was used to quench autofluorescence from the tissues. Nuclei were stained with DAPI (Product # D1306) and the sections were mounted using ProLong™ Glass Antifade Mountant (Product # P36984). The images were captured on EVOS™ M7000 Imaging System (Product # AMF7000) at 20X magnification and externally deconvoluted.



Immunohistochemistry (5)

<p>Nature immunology</p> <p>Adaptive immune responses to SARS-CoV-2 persist in the pharyngeal lymphoid tissue of children.</p> <p>"53-0202-82 was used in Immunohistochemistry-immunofluorescence to provide evidence for persistent tissue-specific immunity to SARS-CoV-2 in the upper respiratory tract of children after infection."</p> <p>Authors: Xu Q,Milanez-Almeida P,Martins AJ,Radtke AJ,Hoehn KB,Oguz C,Chen J,Liu C,Tang J,Grubbs G,Stein S, Ramelli S,Kabat J,Behzadpour H,Karkanitsa M,Spathies J,Kalish H,Kardava L,Kirby M,Cheung F,Preite S,Duncker PC, Kitakule MM,Romero N,Preciado D,Gitman L,Koroleva G,Smith G,Shaffer A,McBain IT,McGuire PJ,Pittaluga S,Germain RN,Apps R,Schwartz DM,Sadtler K,Moir S,Chertow DS,Kleinstein SH,Khurana S,Tsang JS,Mudd P,Schwartzberg PL, Manthiram K</p>	<p>Year 2023</p> <p>Species Human</p> <p>Dilution 1:100</p>
<p>Frontiers in immunology</p> <p>In Situ Characterization of Human Lymphoid Tissue Immune Cells by Multispectral Confocal Imaging and Quantitative Image Analysis; Implications for HIV Reservoir Characterization.</p> <p>"Published figure using CD20 monoclonal antibody (Product # 53-0202-82) in Immunohistochemistry"</p> <p>Authors: Moysi E,Del Rio Estrada PM,Torres-Ruiz F,Reyes-Terán G,Koup RA,Petrovas C</p>	<p>Year 2021</p>

View more IHC references on thermofisher.com

Immunohistochemistry (PFA fixed) (1)

<p>The Journal of clinical investigation</p> <p>Positive and negative selection shape the human naive B cell repertoire.</p> <p>"53-0202-82 was used in Immunohistochemistry (PFA fixed) to suggest that Tregs repressed autoreactive naive B cells continuously produced by the bone marrow."</p> <p>Authors: Chen JW,Schickel JN,Tsakiris N,Sng J,Arbogast F,Bouis D,Parisi D,Gera R,Boeckers JM,Delmotte FR, Veselits M,Schuetz C,Jacobsen EM,Posovscky C,Schulz AS,Schwarz K,Clark MR,Menard L,Meffre E</p>	<p>Year 2022</p> <p>Species Human</p>
--	---

Immunocytochemistry (3)

<p>Scientific data</p> <p>Highly multiplexed immunofluorescence images and single-cell data of immune markers in tonsil and lung cancer.</p> <p>"Published figure using CD20 monoclonal antibody (Product # 53-0202-82) in Immunocytochemistry"</p> <p>Authors: Rashid R,Gaglia G,Chen YA,Lin JR,Du Z,Maliga Z,Schapiro D,Yapp C,Muhlich J,Sokolov A,Sorger P, Santagata S</p>	<p>Year 2019</p>
---	----------------------

View more ICC/IF references on thermofisher.com

More applications with references on thermofisher.com

Misc (1)

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.