

CD45 Monoclonal Antibody (30-F11), PE,
 eBioscience™

Catalog Number 12-0451-82

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Mouse
Host/Isotope	Rat / IgG2b, kappa	Published species	Mouse, Human, Not Applicable
Class	Monoclonal	Tested Applications	Dilution *
Type	Antibody	Flow Cytometry (Flow)	0.125 µg/test
Clone	30-F11	Published Applications	
Conjugate	PE	Flow Cytometry (Flow)	See 91 publications below
Form	Liquid	Immunohistochemistry (IHC)	See 4 publications below
Concentration	0.2 mg/mL	Miscellaneous PubMed (Misc)	See 2 publications below
Purification	Affinity chromatography	Immunohistochemistry (Frozen) (IHC (F))	See 3 publications below
Storage buffer	PBS, pH 7.2	Immunocytochemistry (ICC/IF)	See 1 publications below
Contains	0.09% sodium azide	Immunohistochemistry (PFA fixed) (IHC (PFA))	See 1 publications below
Storage Conditions	4° C, store in dark, DO NOT FREEZE!		

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

Description: The 30-F11 monoclonal antibody reacts with all isoforms of mouse CD45, also known as Leukocyte Common Antigen (LCA). CD45 is expressed by all hematopoietic cells excluding mature erythrocytes and platelets. The cytoplasmic portion of CD45 has tyrosine phosphatase enzymatic activity and plays an important role in activation of lymphocytes. Applications Reported: The 30-F11 antibody has been reported for use in flow cytometric analysis. Applications Tested: This 30-F11 antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest. Excitation: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser. Filtration: 0.2 µm post-manufacturing filtered.

Background/Target Information

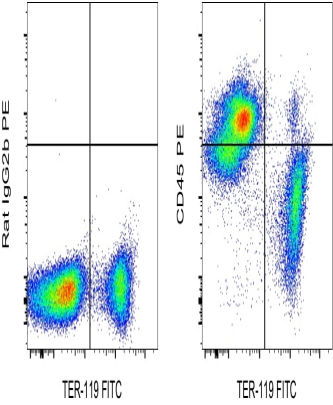
CD45 (LCA, leukocyte common antigen) is a receptor-type protein tyrosine phosphatase (PTP) ubiquitously expressed in all nucleated hematopoietic cells, comprising approximately 10% of all surface proteins in lymphocytes. CD45 is absent on non-hematopoietic cell lines, normal and malignant, non-hematopoietic tissues. CD45 glycoprotein is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases. CD45 protein exists as multiple isoforms as a result of alternative splicing, differ in their extracellular domains but share identical transmembrane and cytoplasmic domains. CD45RA is an isoform of the CD45 complex and has restricted expression between different subtypes of lymphoid cells. CD45 isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. CD45 has been shown to be an essential regulator of T- and B-cell antigen receptor signaling and suppresses JAK kinases to regulate cytokine receptor signaling. CD45 is also important in promoting cell survival by modulating integrin-mediated signal transduction pathway, DNA fragmentation during apoptosis and inhibition or upregulation of various immunological functions.

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CD45 Antibody (12-0451-82) in Flow

C57BL/6 mouse bone marrow cells were stained with TER-119 Monoclonal Antibody, FITC (Product # 11-5921-82) and 0.015 µg of Rat IgG2b kappa Isotype Control, PE (Product # 12-4031-83) (left) or 0.015 µg of CD45 Monoclonal Antibody, PE (right). Total viable cells were used for analysis.

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91 Flow Cytometry References

Species / Dilution	Summary
	<p>12-0451 was used in Flow cytometry/Cell sorting to determine how Ras signalling in neurones promotes gliosis and astrocytoma formation in a cell nonautonomous manner.</p>
Mouse / Not Cited	<p>The Journal of biological chemistry (Jun 2012; 287: 22948) "Oncogenic Kras expression in postmitotic neurons leads to S100A8-S100A9 protein overexpression and gliosis." Author(s):Ryu MJ,Liu Y,Zhong X,Du J,Peterson N,Kong G,Li H,Wang J,Salamat S,Chang Q,Zhang J PubMed Article URL:http://dx.doi.org/10.1074/jbc.M112.357772</p>
	<p>12-0451 was used in Flow cytometry/Cell sorting to reveal that autophagy gene expression inversely correlates with pro-metastatic differentiation signatures and predicts overall and distant metastasis-free survival.</p>
Mouse / Not Cited	<p>Developmental cell (Mar 2020; 52: 591) "Autophagic Degradation of NBR1 Restricts Metastatic Outgrowth during Mammary Tumor Progression." Author(s):Marsh T,Kenific CM,Suresh D,Gonzalez H,Shamir ER,Mei W,Tankka A,Leidal AM,Kalavacherla S,Woo K,Werb Z,Debnath J PubMed Article URL:http://dx.doi.org/10.1016/j.devcel.2020.01.025</p>
	<p>12-0451 was used in Flow cytometry/Cell sorting to suggest that Irf5 promotes inflammatory cytokine production in resident macrophages resulting in accelerated cystogenesis.</p>
Mouse / Not Cited	<p>Kidney360 (Mar 2020; 1: 179) "Interferon Regulatory Factor-5 in Resident Macrophage Promotes Polycystic Kidney Disease." Author(s):Zimmerman KA,Huang J,He L,Revell DZ,Li Z,Hsu JS,Fitzgibbon WR,Hazard ES,Hardiman G,Mrug M,Bell PD,Yoder BK,Saigusa T PubMed Article URL:http://dx.doi.org/10.34067/KID.0001052019</p>
	<p>12-0451 was used in Flow cytometry/Cell sorting to show that PTEN plays a key role in Th17 cell differentiation by blocking IL-2 expression.</p>
Mouse / Not Cited	<p>The Journal of experimental medicine (Nov 2017; 214: 3381) "PTEN drives Th17 cell differentiation by preventing IL-2 production." Author(s):Kim HS,Jang SW,Lee W,Kim K,Sohn H,Hwang SS,Lee GR PubMed Article URL:http://dx.doi.org/10.1084/jem.20170523</p>
	<p>12-0451 was used in Flow cytometry/Cell sorting to identify BTSa1, a pharmacologically optimised BAX activator that binds with high affinity and specificity to the N-terminal activation site and induces conformational changes to BAX leading to BAX-mediated apoptosis.</p>
Mouse / Not Cited	<p>Cancer cell (Oct 2017; 32: 490) "Direct Activation of BAX by BTSa1 Overcomes Apoptosis Resistance in Acute Myeloid Leukemia." Author(s):Reyna DE,Garner TP,Lopez A,Kopp F,Choudhary GS,Sridharan A,Narayanagari SR,Mitchell K,Dong B,Bartholdy BA,Walensky LD,Verma A,Steidl U,Gavathiotis E PubMed Article URL:http://dx.doi.org/10.1016/j.ccell.2017.09.001</p>
	<p>12-0451 was used in Flow cytometry/Cell sorting to show how KLF4-dependent phenotypic modulation of smooth muscle cells has a key role in atherosclerotic plaque pathogenesis.</p>
Mouse / Not Cited	<p>Nature medicine (Jun 2015; 21: 628) "KLF4-dependent phenotypic modulation of smooth muscle cells has a key role in atherosclerotic plaque pathogenesis." Author(s):Shankman LS,Gomez D,Cherepanova OA,Salmon M,Alencar GF,Haskins RM,Swiatlowska P,Newman AA,Greene ES,Straub AC,Isakson B,Randolph GJ,Owens GK PubMed Article URL:http://dx.doi.org/10.1038/nm.3866</p>
	<p>12-0451-82 was used in Flow Cytometry to determine the roles of different vascular and immune cells in abdominal aortic aneurysm formation and pathogenesis.</p>
Mouse / Not Cited	<p>Frontiers in cardiovascular medicine (Dec 2021; 8:) "Single-Cell Transcriptome Profiles Reveal Fibrocytes as Potential Targets of Cell Therapies for Abdominal Aortic Aneurysm." Author(s):Li B,Song X,Guo W,Hou Y,Hu H,Ge W,Fan T,Han Z,Li Z,Yang P,Gao R,Zhao H,Wang J PubMed Article URL:http://dx.doi.org/10.3389/fcvm.2021.753711</p>
	<p>12-0451 was used in Flow cytometry/Cell sorting to investigate the role of TRAF6 and medullary thymic epithelial cells (mETCs) in autoimmunity, showing that mETC depletion leads to autoimmune hepatitis.</p>
Mouse / Not Cited	<p>The Journal of clinical investigation (Aug 2013; 123: 3510) "Medullary thymic epithelial cell depletion leads to autoimmune hepatitis." Author(s):Bonito AJ,Aloman C,Fiel MI,Danzl NM,Cha S,Weinstein EG,Jeong S,Choi Y,Walsh MC,Alexandropoulos K PubMed Article URL:http://dx.doi.org/10.1172/JCI65414</p>

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	12-0451 was used in Flow cytometry/Cell sorting to characterise the distribution of microglia and macrophages in the mouse brain following mesenchymal stem cell implantation, showing that resident immune cells surround the graft site while peripheral immune cells invade the graft.
Mouse / Not Cited	Immunology and cell biology (Sep 2014; 92: 650) "Distinct spatial distribution of microglia and macrophages following mesenchymal stem cell implantation in mouse brain." Author(s):Le Blon D,Hoornaert C,Daans J,Santermans E,Hens N,Goossens H,Berneman Z,Ponsaerts P PubMed Article URL: http://dx.doi.org/10.1038/icb.2014.49
	12-0451-82 was used in Flow cytometry/Cell sorting to suggest that the developed vaccine can elicit a multifaceted immune response and induce robust viral clearance in the URT, which makes it a potential vaccine for preventing disease and infection of SARS-CoV-2.
Mouse / Not Cited	Cell reports (Dec 2021; 37:) "A two-adjuvant multiantigen candidate vaccine induces superior protective immune responses against SARS-CoV-2 challenge." Author(s):Jiang W,Shi L,Cai L,Wang X,Li J,Li H,Liang J,Gu Q,Ji G,Li J,Liu L,Sun M PubMed Article URL: http://dx.doi.org/10.1016/j.celrep.2021.110112
	12-0451 was used in Flow cytometry/Cell sorting to examine the potential for peptidylarginine deiminase 4-dependant citrullination to drive the progression of colorectal cancer liver metastasis.
Mouse / Not Cited	Nature communications (Nov 2018; 9:) "Colorectal cancer liver metastatic growth depends on PAD4-driven citrullination of the extracellular matrix." Author(s):Yuzhalin AE,Gordon-Weeks AN,Tognoli ML,Jones K,Markelc B,Konietzny R,Fischer R,Muth A,O'Neill E, Thompson PR,Venables PJ,Kessler BM,Lim SY,Muschel RJ PubMed Article URL: http://dx.doi.org/10.1038/s41467-018-07306-7
	12-0451 was used in Flow cytometry/Cell sorting to investigate the fibrosis in a scleroderma mouse model which is triggered by antigen mismatched bone marrow stromal/stem cells.
Mouse / Not Cited	eLife (Jan 2016; 5:) "MHC-compatible bone marrow stromal/stem cells trigger fibrosis by activating host T cells in a scleroderma mouse model." Author(s):Ogawa Y,Morikawa S,Okano H,Mabuchi Y,Suzuki S,Yaguchi T,Sato Y,Mukai S,Yaguchi S,Inaba T,Okamoto S, Kawakami Y,Tsubota K,Matsuzaki Y,Shimmura S PubMed Article URL: http://dx.doi.org/10.7554/eLife.09394
	12-0451 was used in Flow cytometry/Cell sorting to elucidate repair mechanisms of proliferation and trandifferentiation of type II alveolar pneumocytes (AT2 cells) into type I alveolar pneumocytes (AT1 cells) after acute lung injury.
Mouse / Not Cited	Nature cell biology (Oct 2020; 22: 1197) "STAT3-BDNF-TrkB signalling promotes alveolar epithelial regeneration after lung injury." Author(s):Paris AJ,Hayer KE,Oved JH,Avgousti DC,Toulmin SA,Zepp JA,Zacharias WJ,Katzen JB,Basil MC,Kremp MM, Slamowitz AR,Jayachandran S,Sivakumar A,Dai N,Wang P,Frank DB,Eisenlohr LC,Cantu E,Beers MF,Weitzman MD, Morrissey EE,Worthen GS PubMed Article URL: http://dx.doi.org/10.1038/s41556-020-0569-x
	12-0451 was used in Flow cytometry/Cell sorting to investigate the importance of specific chromatin and transcriptional states in differentially priming tumours to epithelial-to-mesenchymal transition.
Mouse / 1:100	Cell stem cell (Feb 2017; 20: 191) "Cell-Type-Specific Chromatin States Differentially Prime Squamous Cell Carcinoma Tumor-Initiating Cells for Epithelial to Mesenchymal Transition." Author(s):Latil M,Nassar D,Beck B,Boumahdi S,Wang L,Brisebarre A,Dubois C,Nkusi E,Lenglez S,Checinska A, Vercauteren Drubbel A,Devos M,Declercq W,Yi R,Blanpain C PubMed Article URL: http://dx.doi.org/10.1016/j.stem.2016.10.018
	12-0451 was used in Flow cytometry/Cell sorting to investigate anti-CD8 immuno-PET as a sensitive tool for tracking systemic and tumour-infiltrating CD8+ T cell expression in tumour immunotherapy models.
Mouse / Not Cited	Cancer research (Jan 2016; 76: 73) "An Effective Immuno-PET Imaging Method to Monitor CD8-Dependent Responses to Immunotherapy." Author(s):Tavaré R,Escuin-Ordinas H,Mok S,McCracken MN,Zettlitz KA,Salazar FB,Witte ON,Ribas A,Wu AM PubMed Article URL: http://dx.doi.org/10.1158/0008-5472.CAN-15-1707
	12-0451 was used in Flow cytometry/Cell sorting to examine the effects of fluorescence activated cell sorting separation on short-term transcriptional profiles.
Mouse / Not Cited	Cytometry. Part A : the journal of the International Society for Analytical Cytology (Feb 2015; 87: 166) "Does FACS perturb gene expression?" Author(s):Richardson GM,Lannigan J,Macara IG PubMed Article URL: http://dx.doi.org/10.1002/cyto.a.22608

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<p>Mouse / Not Cited</p>	<p>12-0451 was used in Flow cytometry/Cell sorting to investigate the functional role of c-Myb in hematopoietic cell development from endothelial cells, showing that proper levels of c-Myb are discretely defined at distinct steps of development.</p> <p>Blood (Aug 2006; 108: 896) "Proper levels of c-Myb are discretely defined at distinct steps of hematopoietic cell development." Author(s): Sakamoto H,Dai G,Tsujino K,Hashimoto K,Huang X,Fujimoto T,Mucenski M,Frampton J,Ogawa M PubMed Article URL:http://dx.doi.org/10.1182/blood-2005-09-3846</p>
<p>Mouse / Not Cited</p>	<p>12-0451 was used in Flow cytometry/Cell sorting to investigate the function of brain-resident CD4 T cells.</p> <p>Cell (Aug 2020; 182: 625) "Microglia Require CD4 T Cells to Complete the Fetal-to-Adult Transition." Author(s): Pasciuto E,Burton OT,Roca CP,Lagou V,Rajan WD,Theys T,Mancuso R,Tito RY,Kouser L,Callaerts-Vegh Z,de la Fuente AG,Prezzemolo T,Mascali LG,Brajic A,Whyte CE,Yshii L,Martinez-Muriana A,Naughton M,Young A,Moudra A, Lemaitre P,Poovathingal S,Raes J,De Strooper B,Fitzgerald DC,Dooley J,Liston A PubMed Article URL:http://dx.doi.org/10.1016/j.cell.2020.06.026</p>
<p>Mouse / Not Cited</p>	<p>12-0451 was used in Flow cytometry/Cell sorting to study exacerbation of atherogenesis with genetic deletion of chemokine receptor Ccr7 in ApoE-deficient mice.</p> <p>Cardiovascular research (Mar 2013; 97: 580) "Genetic deletion of chemokine receptor Ccr7 exacerbates atherogenesis in ApoE-deficient mice." Author(s): Wan W,Lionakis MS,Liu Q,Roff�� E,Murphy PM PubMed Article URL:http://dx.doi.org/10.1093/cvr/cvs349</p>
<p>Mouse / Not Cited</p>	<p>12-0451 was used in Flow cytometry/Cell sorting to examine experimental autoimmune encephalitis in ICAM-1 x C3 double knockout mice.</p> <p>Neuroscience letters (Sep 2008; 442: 158) "Deletion of both ICAM-1 and C3 enhances severity of experimental autoimmune encephalomyelitis compared to C3-deficient mice." Author(s): Smith SS,Ludwig M,Wohler JE,Bullard DC,Szalai AJ,Barnum SR PubMed Article URL:http://dx.doi.org/10.1016/j.neulet.2008.07.005</p>
<p>Mouse / 1:200</p>	<p>12-0451-82 was used in Flow cytometry/Cell sorting to investigate the role of SIRP in neurodegeneration.</p> <p>Nature communications (Apr 2021; 12:) "Loss of microglial SIRP promotes synaptic pruning in preclinical models of neurodegeneration." Author(s): Ding X,Wang J,Huang M,Chen Z,Liu J,Zhang Q,Zhang C,Xiang Y,Zen K,Li L PubMed Article URL:http://dx.doi.org/10.1038/s41467-021-22301-1</p>
<p>Mouse / Not Cited</p>	<p>12-0451-82 was used in Flow cytometry/Cell sorting to demonstrated that CD8+ T-lymphocytes play a key role in supporting the survival of reparative MoMFs during liver healing trough ICOS/ICOSL-mediated signaling.</p> <p>Frontiers in immunology (Feb 2022; 12:) "Inducible T-Cell Costimulator Mediates Lymphocyte/Macrophage Interactions During Liver Repair." Author(s): Ramavath NN,Gadipudi LL,Provera A,Gigliotti LC,Boggio E,Bozzola C,Albano E,Dianzani U,Sutti S PubMed Article URL:http://dx.doi.org/10.3389/fimmu.2021.786680</p>
<p>Mouse / Not Cited</p>	<p>12-0451 was used in Flow cytometry/Cell sorting to show that GDF15 coordinates tolerance to inflammatory damage through regulation of triglyceride metabolism.</p> <p>Cell (Aug 2019; 178: 1231) "GDF15 Is an Inflammation-Induced Central Mediator of Tissue Tolerance." Author(s): Luan HH,Wang A,Hilliard BK,Carvalho F,Rosen CE,Ahasic AM,Herzog EL,Kang I,Pisani MA,Yu S,Zhang C, Ring AM,Young LH,Medzhitov R PubMed Article URL:http://dx.doi.org/10.1016/j.cell.2019.07.033</p>
<p>Mouse / Not Cited</p>	<p>12-0451 was used in Flow cytometry/Cell sorting to specify the cellular identities of the adipogenic and osteogenic lineages of the bone.</p> <p>Cell stem cell (Jun 2017; 20: 771) "Adipocyte Accumulation in the Bone Marrow during Obesity and Aging Impairs Stem Cell-Based Hematopoietic and Bone Regeneration." Author(s): Ambrosi TH,Scialdone A,Graja A,Gohlke S,Jank AM,Bocian C,Woelk L,Fan H,Logan DW,Sch��rmann A,Saraiva LR,Schulz TJ PubMed Article URL:http://dx.doi.org/10.1016/j.stem.2017.02.009</p>
<p>Mouse / Not Cited</p>	<p>12-0451 was used in Flow cytometry/Cell sorting to demonstrate an anti-lymphangiogenic function of Th2 cells and their cytokines IL-4 and IL-13, and show that blockade of these cytokines improves lymphatic function in an asthma model.</p> <p>Nature communications (Feb 2015; 6:) "TH2 cells and their cytokines regulate formation and function of lymphatic vessels." Author(s): Shin K,Kataru RP,Park HJ,Kwon BI,Kim TW,Hong YK,Lee SH PubMed Article URL:http://dx.doi.org/10.1038/ncomms7196</p>

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	12-0451 was used in Flow cytometry/Cell sorting to indicate that there is a conserved population of innate immune cells across multiple species that have been defined as resident macrophages in the mouse.
Human / Not Cited	Journal of the American Society of Nephrology : JASN (May 2019; 30: 767) "Single-Cell RNA Sequencing Identifies Candidate Renal Resident Macrophage Gene Expression Signatures across Species." Author(s):Zimmerman KA,Bentley MR,Lever JM,Li Z,Crossman DK,Song CJ,Liu S,Crowley MR,George JF,Mrug M,Yoder BK PubMed Article URL: http://dx.doi.org/10.1681/ASN.2018090931
Mouse / Not Cited	12-0451 was used in Flow cytometry/Cell sorting to suggest that the earliest T cell progenitors represent a developmentally homogeneous progenitor pool that ensures the efficient generation of the first cohorts of T cells during thymus development. Journal of immunology (Baltimore, Md. : 1950) (May 2011; 186: 5227) "Clonal analysis reveals uniformity in the molecular profile and lineage potential of CCR9(+) and CCR9(-) thymus-settling progenitors." Author(s):Desanti GE,Jenkinson WE,Parnell SM,Boudil A,Gautreau-Rolland L,Eksteen B,Ezine S,Lane PJ,Jenkinson EJ,Anderson G PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1002686
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4 Immunohistochemistry References

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2 Miscellaneous PubMed References

Species / Dilution	Summary
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	12-0451 was used in Magnetic cell separation to identify the metal-ion transporter ZRT- and IRT-like protein 14 as a critical mediator of cancer-induced cachexia.
Mouse / 1:100	<p>Nature medicine (Jun 2018; 24: 770)</p> <p>"Metastatic cancers promote cachexia through ZIP14 upregulation in skeletal muscle."</p> <p>Author(s):Wang G,Biswas AK,Ma W,Kandpal M,Coker C,Grandgenett PM,Hollingsworth MA,Jain R,Tanji K,Lpez-Pintado S,Borczuk A,Hebert D,Jenkitkasemwong S,Hojyo S,Davuluri RV,Knutson MD,Fukada T,Acharyya S</p> <p>PubMed Article URL:http://dx.doi.org/10.1038/s41591-018-0054-2</p>
	12-0451 was used in Magnetic cell separation to purify different subsets of CD34(+) cells from fetal mice and analyse their developmental potential in vitro and in vivo.
Mouse / Not Cited	<p>Stem cell research (Nov 2011; 7: 230)</p> <p>"Fetal muscle contains different CD34+ cell subsets that distinctly differentiate into adipogenic, angiogenic and myogenic lineages."</p> <p>Author(s):Dupas T,Rouaud T,Rouger K,Lieubeau B,Cario-Toumaniantz C,Fontaine-Pérus J,Gardahaut MF,Auda-Boucher G</p> <p>PubMed Article URL:http://dx.doi.org/10.1016/j.scr.2011.06.004</p>
3 Immunohistochemistry (Frozen) References	
Species / Dilution	Summary
	12-0451 was used in Immunofluorescence to report a novel role for embryonic mesothelium-derived cells in lung morphogenesis.
Mouse / Not Cited	<p>American journal of physiology. Lung cellular and molecular physiology (Aug 2013; 305: L322)</p> <p>"Wt1-expressing progenitors contribute to multiple tissues in the developing lung."</p> <p>Author(s):Cano E,Carmona R,Muñoz-Chápuli R</p> <p>PubMed Article URL:http://dx.doi.org/10.1152/ajplung.00424.2012</p>
	12-0451 was used in Immunofluorescence to suggest that CCDC88B has a critical function in colon inflammation and the pathogenesis of inflammatory bowel disease.
Mouse / 1:100	<p>Nature communications (Oct 2017; 8:)</p> <p>"CCDC88B is required for pathogenesis of inflammatory bowel disease."</p> <p>Author(s):Fodil N,Moradin N,Leung V,Olivier JF,Radovanovic I,Jeyakumar T,Flores Molina M,McFarquhar A,Cayrol R,Bozec D,Shoukry NH,Kubo M,Dimitrieva J,Louis E,Theatre E,Dahan S,Momozawa Y,Georges M,Yeretssian G,Gros P</p> <p>PubMed Article URL:http://dx.doi.org/10.1038/s41467-017-01381-y</p>
	12-0451 was used in Western Blotting to help prove the concept that subcutaneous and subconjunctival injection of HC-HA/PTX3 is a novel approach to prevent dry eye disease caused by cGVHD.
Mouse / Not Cited	<p>Scientific reports (Feb 2017; 7:)</p> <p>"Heavy Chain-Hyaluronan/Pentraxin 3 from Amniotic Membrane Suppresses Inflammation and Scarring in Murine Lacrimal Gland and Conjunctiva of Chronic Graft-versus-Host Disease."</p> <p>Author(s):Ogawa Y,He H,Mukai S,Imada T,Nakamura S,Su CW,Mahabole M,Tseng SC,Tsubota K</p> <p>PubMed Article URL:http://dx.doi.org/10.1038/srep42195</p>
1 Immunocytochemistry References	
Species / Dilution	Summary
	12-0451 was used in Immunofluorescence to study the molecular mechanisms underpinning the pathology of Mob1a/1b-deficient mice.
Mouse / Not Cited	<p>Proceedings of the National Academy of Sciences of the United States of America (Jan 2016; 113: E71)</p> <p>"Dysregulated YAP1/TAZ and TGF- signaling mediate hepatocarcinogenesis in Mob1a/1b-deficient mice."</p> <p>Author(s):Nishio M,Sugimachi K,Goto H,Wang J,Morikawa T,Miyachi Y,Takano Y,Hikasa H,Itoh T,Suzuki SO,Kurihara H,Aishima S,Leask A,Sasaki T,Nakano T,Nishina H,Nishikawa Y,Sekido Y,Nakao K,Shin-Ya K,Mimori K,Suzuki A</p> <p>PubMed Article URL:http://dx.doi.org/10.1073/pnas.1517188113</p>
1 Immunohistochemistry (PFA fixed) References	
Species / Dilution	Summary
	12-0451 was used in Immunofluorescence to evaluate putative cell surface mesenchymal stem cell markers to identify Nestin+ cells in the mouse and human bone marrow.
Mouse / Not Cited	<p>The Journal of experimental medicine (Jul 2013; 210: 1351)</p> <p>"PDGFR and CD51 mark human nestin+ sphere-forming mesenchymal stem cells capable of hematopoietic progenitor cell expansion."</p> <p>Author(s):Pinho S,Lacombe J,Hanoun M,Mizoguchi T,Bruns I,Kunisaki Y,Frenette PS</p> <p>PubMed Article URL:http://dx.doi.org/10.1084/jem.20122252</p>

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