IFN gamma Monoclonal Antibody (XMG1.2), PE, eBioscience™
Catalog Number 12-7311-82

**Details**
- **Size**: 100 µg
- **Host/Isotope**: Rat / IgG1, kappa
- **Class**: Monoclonal
- **Type**: Antibody
- **Clone**: XMG1.2
- **Conjugate**: PE
- **Form**: Liquid
- **Concentration**: 0.2 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!

**Species Reactivity**
- **Species reactivity**: Mouse
- **Published species**: Mouse, Human, Not Applicable

**Tested Applications**
- **Flow Cytometry (Flow)**: 0.25 µg/test

**Published Applications**
- **Flow Cytometry (Flow)**: See 154 publications below
- **ELISA (ELISA)**: See 1 publications below
- **In Situ Hybridization (ISH) (ISH)**: See 2 publications below
- **Immunohistochemistry (IHC)**: See 1 publications below
- **Immunocytochemistry (ICC/IF)**: See 1 publications below
- **Neutralization (Neu)**: See 1 publications below

*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 XMG1.2 antibody reacts with mouse interferon (IFN) gamma. The XMG1.2 antibody is a neutralizing antibody. Mouse IFN gamma is a 20 kDa factor produced by activated T, B and NK cells, and is an anti-viral and anti-parasitic cytokine. IFN gamma, in synergy with other cytokines such as TNF alpha, inhibits proliferation of normal and transformed cells. Immunomodulatory effects of IFN gamma are exerted on a wide range of cell types expressing the high affinity receptors for IFN gamma. Glycosylation of IFN gamma does not affect its biological activity. Applications Reported: This XMG1.2 antibody has been reported for use in intracellular staining followed by flow cytometric analysis. Applications Tested: This XMG1.2 antibody has been tested by intracellular staining and flow cytometric analysis of stimulated mouse splenocytes using the Intracellular Fixation & Permeabilization Buffer Set (cat. 88-8824) and protocol. Please refer to Best Protocols: Protocol A: Two step protocol for (cytoplasmic) intracellular proteins located under the Resources Tab. This can be used at less than or equal to 0.25 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**

IFN gamma (Interferon gamma, Type II interferon) is a macrophage activation factor, and immune interferon that is produced primarily by T-lymphocytes and natural killer cells in response to antigens, mitogens, Staphylococcus enterotoxin B, phytohemaglutanin and other cytokines. IFN gamma is a dimeric protein consisting of two 146 amino acid subunits. IFN gamma is a glycoprotein that exists, functionally, as a homodimer of approximately 45 kDa. On SDS-PAGE, IFN gamma appears as a combination of 25, 20 and minor 15.5 kDa bands as a result of differential glycosylation. The biological activity of the IFN gamma homodimer is highly species specific. Human IFN gamma does not show cross-reactivity with mouse. IFN gamma function includes the following: antiviral activity, tumor antiproliferative activity, induction of class I and II MHC, macrophage activation, and enhanced immunoglobulin secretion by B lymphocytes. IFN gamma is involved in cytokine regulation and also acts synergistically with other cytokines. Activation of IFN gamma takes place through binding of IFN gamma receptor I and II, and activating the JAK-STAT pathway. IFN gamma does not show any homology with IFN alpha or IFN beta but human IFN gamma shows about 40% sequence homology with mouse IFN gamma. IFN gamma is upregulated by IL2, FGF basic, EGF and downregulated by vitamin alpha, inhibits proliferation of normal and transformed cells. Immunomodulatory effects of IFN gamma are exerted on a wide range of cell types expressing the high affinity receptors for IFN gamma. Glycosylation of IFN gamma does not affect its biological activity. Applications Reported: This XMG1.2 antibody has been reported for use in intracellular staining followed by flow cytometric analysis. Applications Tested: This XMG1.2 antibody has been tested by intracellular staining and flow cytometric analysis of stimulated mouse splenocytes using the Intracellular Fixation & Permeabilization Buffer Set (cat. 88-8824) and protocol. Please refer to Best Protocols: Protocol A: Two step protocol for (cytoplasmic) intracellular proteins located under the Resources Tab. This can be used at less than or equal to 0.25 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.

**For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.**
**IFN gamma Antibody (12-7311-82)**

Intracellular staining of stimulated mouse splenocytes. As expected based on known expression patterns, IFN gamma clone XMG1.2 stains a minor subset of CD4+ T cells and a larger subset of NK1.1+ NK cells with no staining observed without stimulation. Details: Mouse splenocytes were cultured in the presence of Protein Transport Inhibitors (500X) (Unstimulated, bottom row) or Cell Stimulation Cocktail (plus protein transport inhibitors, 500X) for 5 hours (Stimulated, top row). Cells were fixed and permeabilized with the IC Fixation & Permeabilization Buffer Set and protocol followed by intracellular staining with CD4 (clone RM4-5), NK1.1 (clone PK136) and IFN gamma (clone XMG1.2). Cells in the CD4+ (blue histogram) or NK1.1+ (purple histogram) gates were used for analysis. [TM]

**IFN gamma Antibody (12-7311-82) in Flow**

Mouse splenocytes were stimulated with Con A for 2 days then restimulated with Cell Stimulation Cocktail (plus protein transport inhibitors) (Product # 00-4975-03) for 5 hours. Cells were then surface stained with Anti-Mouse CD4 eFluor® 450 (Product # 48-0042-82) followed by intracellular staining with 0.125 µg of Rat IgG2a K Isotype Control PE (Product # 12-4301-82) (left) or 0.125 µg of Anti-Mouse IFN gamma PE (right) using the Intracellular Fixation & Permeabilization Buffer Set (Product # 88-8824-00) and protocol. Total viable cells, as determined by Fixable Viability Dye eFluor® 506 (Product # 65-0866-14), were used for analysis.
<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
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<tbody>
<tr>
<td>Mouse / Not Cited</td>
<td>12-7311 was used in Flow cytometry/Cell sorting to test the influence of host and donor microbiota on skin transplant rejection.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>12-7311 was used in Flow cytometry/Cell sorting to provide direct evidence that spontaneous chronic prostatitis is an autoimmune disease and is regulated by both central and peripheral tolerance.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>12-7311 was used in Flow cytometry/Cell sorting to suggest that Th1 or Th2 cell apoptosis is preferentially induced by different schistosome antigens during different stages of infection.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>12-7311 was used in Flow cytometry/Cell sorting to reveal that Dectin-2 regulates monocyte-derived DC function in the pulmonary microenvironment at Dermatophagoides farinae challenge.</td>
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<tr>
<td></td>
<td>Journal of immunology (Baltimore, Md. : 1950) (Feb 2014; 192: 1361) &quot;Dectin-2 regulates the effector phase of house dust mite-elicited pulmonary inflammation independently from its role in sensitization.&quot; Author(s): Parsons MW, Li L, Wallace AM, Lee MJ, Katz HR, Fernandez JM, Saijo S, lwakura Y, Austen KF, Kanaoka Y, Barrett NA PubMed Article URL: <a href="http://dx.doi.org/10.4049/jimmunol.1301809">http://dx.doi.org/10.4049/jimmunol.1301809</a></td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>12-7311 was used in Flow cytometry/Cell sorting to determine the mechanisms that chNKG2D T cells require to induce host immunity against ovarian tumours and which of the host immune cells are involved in tumour elimination.</td>
</tr>
<tr>
<td>Mouse / Not Cited</td>
<td>12-7311 was used in Flow cytometry/Cell sorting to investigate the mechanisms underlying the generation of gammadelta T cells, showing that it occurs via a TGF-beta 1-dependent mechanism.</td>
</tr>
<tr>
<td></td>
<td>Journal of immunology (Baltimore, Md. : 1950) (Feb 2010; 184: 1675) &quot;Cutting edge: spontaneous development of IL-17-producing gamma delta T cells in the thymus occurs via a TGF-beta 1-dependent mechanism.&quot; Author(s): Do JS, Fink PJ, Li L, Spolski R, Robinson J, Leonard WJ, Letterio JJ, Min B PubMed Article URL: <a href="http://dx.doi.org/10.4049/jimmunol.0903539">http://dx.doi.org/10.4049/jimmunol.0903539</a></td>
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<td>12-7311 was used in Flow cytometry/Cell sorting to test the influence of host and donor microbiota on skin transplant rejection.</td>
</tr>
<tr>
<td></td>
<td>Scientific reports (Apr 2014; 4: ) &quot;ASK1 promotes the contact hypersensitivity response through IL-17 production.&quot; Author(s): Mizukami J, Sato T, Camps M, Ji H, Rueckle T, Swinnen D, Tsuboi R, Takeda K, Ichijo H PubMed Article URL: <a href="http://dx.doi.org/10.1038/srep04714">http://dx.doi.org/10.1038/srep04714</a></td>
</tr>
</tbody>
</table>
12731182 was used in flow cytometry to investigate the use of red blood cells expressing disease-associated autoantigenas a means of inducing antigen-specific tolerance

Mouse / Not Cited
Proceedings of the National Academy of Sciences of the United States of America (Mar 2017; 114: 3157)
"Engineered erythrocytes covalently linked to antigenic peptides can protect against autoimmune disease."
Author(s):Pisheshia N,Bilame AM,Wibowo MC,Huang NJ,Li Z,Deshycka R,Boussaine D,Li H,Patterson HC,Dougan SK, Maruyama T,Lodish HF,Ploegh HL
PubMed Article URL:http://dx.doi.org/10.1073/pnas.1701746114

Mouse / Not Cited
12-7311 was used in Flow cytometry/Cell sorting to examine the role of Tregs in the development of iodine-accelerated spontaneous autoimmune thyroiditis in mice.

Mouse / Not Cited
"Reduced effectiveness of CD4+Foxp3+ regulatory T cells in CD28-deficient NOD.H-2h4 mice leads to increased severity of spontaneous autoimmune thyroiditis."
Author(s):Ellis JS,Hong SH,Zaghouani H,Braley-Mullen H
PubMed Article URL:http://dx.doi.org/10.4049/jimmunol.1301253

Mouse / Not Cited
12-7311 was used in Flow cytometry/Cell sorting to show T-bet dependence identifies distinct transcriptional pathways in B cells that regulate IFN-γ-induced switching to different IgG isotypes.

Mouse / Not Cited
Proceedings of the National Academy of Sciences of the United States of America (Oct 2010; 107: 17292)
"IFN-(gamma) produced by CD8 T cells induces T-bet-dependent and -independent class switching in B cells in responses to alum-precipitated protein vaccine."
Author(s):Mohr E,Cunningham AF,Toellner KM,Bobat S,Coughlan RE,Bird RA,MacLennan IC,Serre K
PubMed Article URL:http://dx.doi.org/10.1073/pnas.1004879107

Mouse / Not Cited
12-7311 was used in Immuno-assay to suggest that highly attenuated strains of vaccinia virus containing E3L mutations have the potential for use as scarring administered vaccines.

Mouse / Not Cited
"ITGB4 deficiency in bronchial epithelial cells directs airway inflammation and bipolar disorder-related behavior."

Mouse / Not Cited
12-7311 was used in Flow cytometry/Cell sorting to demonstrate the numerous pathways leading to the secretion of IFN-gamma by CD8+ T cells during infection.

Mouse / Not Cited
Journal of virology (Sep 2014; 88: 10569)
"Prophylaxis with a respiratory syncytial virus (RSV) anti-G protein monoclonal antibody shifts the adaptive immune response to RSV rA2-line19F infection from Th2 to Th1 in BALB/c mice."
PubMed Article URL:http://dx.doi.org/10.1128/JVI.01503-14

Mouse / Not Cited
12-7311 was used in Flow cytometry/Cell sorting to show T-bet dependence identifies distinct transcriptional pathways in B cells that regulate IFN-γ-induced switching to different IgG isotypes.

Mouse / Not Cited
PloS one (Jun 2014; 8: )
"Ficolin-2 defends against virulent Mycobacteria tuberculosis infection in vivo, and its insufficiency is associated with infection in humans."
PubMed Article URL:http://dx.doi.org/10.1371/journal.pone.0073859

Mouse / Not Cited
12-7311 was used in Flow cytometry/Cell sorting to investigate the role of ficolin-2 during Mycobacterium tuberculosis infection.

Mouse / Not Cited
Vaccine (Jun 2008; 26: 2860)
"Vaccinia viruses with mutations in the E3L gene as potential replication-competent, attenuated vaccines: scarification vaccination."
Author(s):Jentarra GM,Heck MC,Youn JW,Kibler K,Langland JO,Baskin CR,Ananiene O,Chang Y, Jacobs BL
PubMed Article URL:http://dx.doi.org/10.1016/j.vaccine.2008.03.044

Mouse / Not Cited
Journal of virology (Dec 2008; 82: 13145)
"Ficolin-2 defends against virulent Mycobacteria tuberculosis infection in vivo, and its insufficiency is associated with infection in humans."
Author(s):Jentarra GM,Heck MC,Youn JW,Kibler K,Langland JO,Baskin CR,Ananiene O,Chang Y, Jacobs BL
PubMed Article URL:http://dx.doi.org/10.1128/JVI.01503-14

Mouse / Not Cited
12-7311 was used in an ELISA assay to investigate the role of ficolin-2 during Mycobacterium tuberculosis infection.

Mouse / Not Cited
Infection and immunity (Apr 2009; 77: 1492)
"Multiple mechanisms contribute to the robust rapid gamma interferon response by CD8+ T cells during Listeria monocytogenes infection."
Author(s):Bou Ghanem EN,McElroy DS,D’Orazio SE
PubMed Article URL:http://dx.doi.org/10.1128/IAI.01207-08

12-7311 was used in Flow cytometry/Cell sorting to demonstrate that a combination of CD27, and KLRG1 can distinguish NK cells based on their mechanism of activation.

Journal of immunology (Baltimore, Md. : 1950) (Jun 2013; 190: 6269)
"Markers of nonselective and specific NK cell activation."
Author(s): Fogel LA, Sun MM, Geurs TL, Carayannopoulos LN, French AR
PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1202533

12-7311 was used in Flow cytometry/Cell sorting to identify a unique function for gV-sPLA2 in the activation and recruitment of immune cells.

Journal of immunology (Baltimore, Md. : 1950) (Jun 2013; 190: 5927)
"Group V secretory phospholipase A2 is involved in macrophage activation and is sufficient for macrophage effector functions in allergic pulmonary inflammation."
Author(s): Ohta S, Imamura M, Xing W, Boyce JA, Balestri B
PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1203202

12-7311-82 was used in Flow Cytometry to implicate negative co-stimulation as a key regulator and determinant of T cell differentiation and suggest that checkpoint blockade might work in part by altering the limits of T cell phenotypes.

Immunity (Apr 2019; 50: 1084)
"Negative Co-stimulation Constrains T Cell Differentiation by Imposing Boundaries on Possible Cell States."
PubMed Article URL: http://dx.doi.org/10.1016/j.immuni.2019.03.004

12-7311 was used in Flow Cytometry to support the use of NCV delivered by DNA-EP with CTLA-4 and suggest a new combined therapy for clinical testing.

NPJ vaccines (Feb 2022; 7: )
"Neoantigen cancer vaccine augments anti-CTLA-4 efficacy."
Author(s): Salvatori E, Lione L, Compagnone M, Pinto E, Conforti A, Ciliberto G, Aurisicchio L, Palombo F
PubMed Article URL: http://dx.doi.org/10.1038/s41541-022-00433-9

12-7311 was used in Flow cytometry/Cell sorting to study IL-7 and IL-15 regulation of CD8+ T-cell subsets during contraction of the immune response.

Blood (Nov 2008; 112: 3704)
"IL-7 and IL-15 differentially regulate CD8+ T-cell subsets during contraction of the immune response."
Author(s): Rubinstein MP, Lind NA, Purton JF, Filippou P, Best JA, McGhee PA, Surh CD, Goldrath AW
PubMed Article URL: http://dx.doi.org/10.1182/blood-2008-06-160945

12-7311 was used in Flow cytometry/Cell sorting to investigate the immunomodulatory effect of ursodeoxycholic acid on experimental hepatitis, endotoxin shock, and bacterial infection in mice.

American journal of physiology. Gastrointestinal and liver physiology (Sep 2013; 305: G427)
"Glucocorticoid receptor-dependent immunomodulatory effect of ursodeoxycholic acid on liver lymphocytes in mice."
Author(s): Takigawa T, Miyazaki H, Kinoshita M, Kawaiabayashi N, Nishiyama K, Yoshioka N, Saitoh D, Seki S, Yamamoto J
PubMed Article URL: http://dx.doi.org/10.1152/ajpgi.00205.2012

12-7311 was used in Flow cytometry/Cell sorting to identify the anti-inflammatory and antiviral activities of isoliquiritigenin during influenza virus infection.

Antimicrobial agents and chemotherapy (Oct 2015; 59: 6317)
"The Flavonoid Isoliquiritigenin Reduces Lung Inflammation and Mouse Morbidity during Influenza Virus Infection."
Author(s): Traboulsi H, Cloutier A, Boyapelly K, Bonin MA, Marsault É, Cantin AM, Richter MV
PubMed Article URL: http://dx.doi.org/10.1128/AAC.01098-15


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12-7311 was used in Flow cytometry/Cell sorting to test the efficacy of immunisation with the nMOMP of Chlamydia trachomatis mouse pneumonitis serovar in combination with CpG oligodeoxynucleotide linked to the nontoxic B subunit of cholera toxin to elicit a protective immune response to C. trachomatis.

**Mouse / Not Cited**

Vaccine (Oct 2009; 27: 6239)

"Induction of protective immunity by vaccination against Chlamydia trachomatis using the major outer membrane protein adjuvanted with CpG oligodeoxynucleotide coupled to the nontoxic B subunit of cholera toxin."

Author(s): Cheng C,Bettahi I,Cruz-Fisher MI,Pal S,Jain P,Jia Z,Holmgren J,Harandi AM,de la Maza LM

PubMed Article URL:http://dx.doi.org/10.1016/j.vaccine.2009.07.108

12-7311 was used in Flow cytometry/Cell sorting to study how PE_PGRS 33 has access to the MHC class I processing pathway, and how short peptide fragments of this protein can be presented to CD8+ T cells.

**Mouse / 1:40**

Journal of medical microbiology (Apr 2007; 56: 466)

"Evaluation of T-cell responses to peptides with MHC class I-binding motifs derived from PE_PGRS 33 protein of Mycobacterium tuberculosis."

Author(s): Chaithra MG, Shaila MS, Nayak R

PubMed Article URL:http://dx.doi.org/10.1099/mm.0.46928-0

12-7311 was used in Flow cytometry/Cell sorting to study the co-stimulatory role of CXCR6/CXCL16 interactions in glycolipid-dependent invariant natural killer T (iNK) cell activation and tumour control, showing that CXCL16-positive dendritic cells enhance iNK cell-dependent IFN production and tumor control.

**Mouse / Not Cited**

Oncoimmunology (Jun 2016; 5: )

"CXCL16-positive dendritic cells enhance invariant natural killer T cell-dependent IFN production and tumor control."

Author(s): Veinotte L, Gebremeskel S, Johnston B

PubMed Article URL:http://dx.doi.org/10.1080/2162402X.2016.1160979

12-7311 was used in Flow cytometry/Cell sorting to determine the mechanism for the induction of CD4+ cytotoxic T cells.

**Mouse / Not Cited**

Cell reports (Nov 2016; 17: 1571)

"Opposing Development of Cytotoxic and Follicular Helper CD4 T Cells Controlled by the TCF-1-Bcl6 Nexus."

Author(s): Donnarumma T, Young GR, Merkenschlager J, Eksmond U, Bongard N, Nutt SL, Boyer C, Dittmer D, Le-Trilling VT, Trilling M, Bayer W, Kassiotis G

PubMed Article URL:http://dx.doi.org/10.1016/j.cell.2016.10.013

12-7311 was used in Flow cytometry/Cell sorting to investigate the mechanism for adoptively transferred effector T-cell survival and memory formation.

**Mouse / Not Cited**

American journal of respiratory and critical care medicine (May 2011; 183: 1391)

"Interferon- production by neutrophils during bacterial pneumonia in mice."

Author(s): Yamada M, Gomez JC, Chugh PE, Lowell CA, Dinauer MC, Dittmer DP, Doerschuk CM

PubMed Article URL:http://dx.doi.org/10.1164/rccm.201004-0592OC

12-7311 was used in Flow cytometry/Cell sorting to reveal that neutrophils produce IFN- early in the inflammatory response during pneumonia induced by some bacteria, but not others.

**Mouse / Not Cited**

Cell & bioscience (May 2016; 6: )

"IL-15 signaling promotes adoptive effector T-cell survival and memory formation in irradiation-induced lymphopenia."

Author(s): Xu A, Bhanumathy KK, Wu J, Ye Z, Freywald A, Leary SC, Li R, Xiang J


12-7311 was used in Flow cytometry/Cell sorting to study how PE_PGRS 33 has access to the MHC class I processing pathway, and how short peptide fragments of this protein can be presented to CD8+ T cells.

**Mouse / Not Cited**

Immunoology (May 2017; 1571: 110)

"A role for the histone H2A deubiquitinase MYSM1 in maintenance of CD8+ T cells."

Author(s): Förster M, Boora RK, Petrov JC, Fodil N, Albanese I, Kim J, Gros P, Nijnik A

PubMed Article URL:http://dx.doi.org/10.1111/imm.12710

12-7311 was used in Flow cytometry/Cell sorting to provide insights into the immunosuppressive nature of the immune response generated in the kidney microenvironment.

**Mouse / Not Cited**

Oncoimmunology (Nov 2014; 3: )

"Differential potency of regulatory T cell-mediated immunosuppression in kidney tumors compared to subcutaneous tumors."

Author(s): Devaud C, Westwood JA, Teng MW, John LB, Yong CS, Duong CP, Smyth MJ, Darcy PK, Kershaw MH

PubMed Article URL:http://dx.doi.org/10.4161/21624011.2014.963395


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"). Our 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, 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"). Our claim of suitability for use in applications regulated by FDA is made.
12-7311 was used in Flow cytometry/Cell sorting to study the blockade of PD-1/B7-H1 interaction to restore effector CD8+ T cell responses in a hepatitis C virus core murine model.

Mouse / Not Cited

"Blockade of PD-1/B7-H1 interaction restores effector CD8+ T cell responses in a hepatitis C virus core murine model."
Author(s): Lukens JR, Cruise MW, Lassen MG, Hahn YS
PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.180.7.4875

12-7311 was used in Flow cytometry/Cell sorting to demonstrate that the interaction of T-cell immunoglobulin and mucin domain (TIM)4/TIM1 promotes T helper 2-cell proliferation through enhancing silent information regulator 1 expression in mice with nasal allergic rhinitis.

Mouse / 1:200

International journal of molecular medicine (Nov 2017; 40: 1504)
"TIM4-TIM1 interaction modulates Th2 pattern inflammation through enhancing SIRT1 expression."
PubMed Article URL: http://dx.doi.org/10.3892/ijmm.2017.3150

12-7311 was used in Flow cytometry/Cell sorting to demonstrate that mouse NK cells dynamically express the NGF receptor TrkA.

Mouse / Not Cited

PloS one (Dec 2010; 5: )
"Mouse natural killer (NK) cells express the nerve growth factor receptor TrkA, which is dynamically regulated."
Author(s): Ralainirina N, Brons NH, Ammerlaan W, Hofmann C, Hentges F, Zimmer J
PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0015003

12-7311 was used in Flow cytometry/Cell sorting to establish a neonatal mouse model of influenza infection to elucidate the mechanisms that induce severe pulmonary disease in infants.

Mouse / Not Cited

Journal of immunology (Baltimore, Md. : 1950) (Sep 2008; 181: 3486)
"Inchoate CD8+ T cell responses in neonatal mice permit influenza-induced persistent pulmonary dysfunction."
Author(s): You D, Ripple M, Balakrishna S, Troxclair D, Sandquist D, Ding L, Ahlert TA, Cormier SA
PubMed Article URL: http://dx.doi.org/10.1016/j.jimmunol.2008.12.010

12-7311 was used in Flow cytometry/Cell sorting to determine the mechanisms behind the sex differences in asthmatic responses after puberty.

Mouse / Not Cited

PloS one (Jul 2016; 10: )
"CD8+ T Cells Mediate Female-Dominant IL-4 Production and Airway Inflammation in Allergic Asthma."
Author(s): Ito C, Okuyama-Dobashi K, Miyasaka T, Masuda C, Sato M, Kawano T, Ohkawara Y, Kikuchi T, Takayanagi M, Ohno I
PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0140808

12-7311 was used in Functional assays to demonstrate the immunological effects of interferon-regulatory factor 4 (IRF4) deficiency on CD4(+) T cell polarization.

Mouse / Not Cited

Immunity (Aug 2010; 33: 192)
"Interferon-regulatory factor 4 is essential for the developmental program of T helper 9 cells."
PubMed Article URL: http://dx.doi.org/10.1016/j.immuni.2010.07.014

12-7311 was used in Flow cytometry/Cell sorting to indicate that during graft-versus-host disease, miR-155 promotes DC migration toward sites of ATP release accompanied by inflammasome activation.

Mouse / Not Cited

Blood (Jul 2015; 126: 103)
"MicroRNA-155-deficient dendritic cells cause less severe GVHD through reduced migration and defective inflammasome activation."
PubMed Article URL: http://dx.doi.org/10.1182/blood-2014-12-717258

12-7311 was used in Flow cytometry/Cell sorting to establish a neonatal mouse model of influenza infection to elucidate the mechanisms that induce severe pulmonary disease in infants.

Mouse / Not Cited

PLoS pathogens (Jul 2015; 11: )
"IL-27 Signaling Is Crucial for Survival of Mice Infected with African Trypanosomes via Preventing Lethal Effects of CD4+ T Cells and IFN-.

PubMed Article URL: http://dx.doi.org/10.1371/journal.ppat.1005065


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Thermo Fisher Scientific
1025 Science Center Drive
San Diego, CA 92121
12-7311 was used in Flow cytometry/Cell sorting to investigate whether human iPSCs (hiPSCs) have the ability to enhance specific immune responses against a HIV-1 antigen in a xenogenic mouse model.

**Mouse / Not Cited**

*Frontiers in microbiology* (Jul 2011; 2: )  
"Vaccination with Human Induced Pluripotent Stem Cells Creates an Antigen-Specific Immune Response Against HIV-1 gp160."  
Author(s): Yoshizaki S, Nishi M, Kondo A, Kojima Y, Yamamoto N, Ryo A  
PubMed Article URL: http://dx.doi.org/10.3389/fmicb.2011.00004

12-7311-82 was used in Flow Cytometry to conclude that DC-intrinsic JAK1 promotes peripheral tolerance, suggesting potential unwarranted DC-mediated effects of Jakinibs in autoimmune diseases.

**Mouse / 1:160**

Cell reports (Feb 2022; 38: )  
"JAK1 signaling in dendritic cells promotes peripheral tolerance in autoimmunity through PD-L1-mediated regulatory T cell induction."  
PubMed Article URL: http://dx.doi.org/10.1016/j.celrep.2022.110420

12-7311 was used in Flow cytometry/Cell sorting to enhance the quality of antibodies to HIV-1 envelope by GagPol-Specific T helper Cells.

**Human / Not Cited**

"Enhancing the Quality of Antibodies to HIV-1 Envelope by GagPol-Specific Th Cells."  
PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1501377

12-7311 was used in Flow cytometry to show that, among effector T cell subsets, Th17 and Treg cells selectively expressed multiple components of the IGF system.

**Not Applicable / Not Cited**

*Journal of immunology* (Baltimore, Md. : 1950) (Jul 2008; 181: 190)  
"Th17 cells undergo Fas-mediated activation-induced cell death independent of IFN-gamma."  
Author(s): Zhang Y, Xu G, Zhang L, Roberts AI, Shi Y  
PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.181.1.190

12-7311 was used in Flow cytometry/Cell sorting to investigate the result of delayed anti-CD3 therapy on the number and dominance of alleroptive/graf infiltrating cells.

**Mouse / Not Cited**

"Delayed anti-CD3 therapy results in depletion of alleroptive T cells and the dominance of Foxp3+ CD4+ graft infiltrating cells."  
Author(s): Goto R, You S, Zaitsu M, Chatenoud L, Wood KJ  
PubMed Article URL: http://dx.doi.org/10.1111/ajt.12272

12-7311 was used in Flow cytometry/Cell sorting to examine the phenotype of TSLP-conditioned bone marrow dendritic cells of apolipoprotein E-deficient mice and their capacity to induce the differentiation of Tregs.

**Mouse / Not Cited**

"Thymic stromal lymphopoetin attenuates the development of atherosclerosis in ApoE-/- mice."  
PubMed Article URL: http://dx.doi.org/10.1161/JAHA.113.000391

12-7311 was used in Flow cytometry/Cell sorting to study the distinct roles of CD4 and CD8 T cells in the context of IFN- and IL-10 during Trypanosoma brucei infections.

**Mouse / Not Cited**

*Infection and immunity* (Jul 2015; 83: 2785)  
"Distinct Contributions of CD4+ and CD8+ T Cells to Pathogenesis of Trypanosoma brucei Infection in the Context of Gamma Interferon and Interleukin-10."  
Author(s): X, Zeng Q, Author(s): You S, Zaitsu M, Chatenoud L, Wood KJ  
PubMed Article URL: http://dx.doi.org/10.1111/ajt.12272

12-7311 was used in Flow cytometry/Cell sorting to examine whether human iPSCs (hiPSCs) have the ability to enhance specific immune responses against a HIV-1 antigen in a xenogenic mouse model.
12-7311 was used in Flow cytometry/Cell sorting to highlight that intratumoral immunomodulation with an oncolytic virus expressing a rationally selected ligand can be an effective strategy to drive systemic efficacy of immune checkpoint blockade.

**Mouse / 1:200**

Nature communications (Feb 2017; 8:)

"Intratumoral modulation of the inducible co-stimulator ICOS by recombinant oncolytic virus promotes systemic anti-tumour immunity."


PubMed Article URL: http://dx.doi.org/10.1038/ncomms14340

12-7311-82 was used in Flow cytometry/Cell sorting to suggest that, besides vaccinating non-pregnant individuals, 3'UTR-? 10-LAV may also be considered for maternal vaccination.

**Mouse / 1:10**

Nature communications (Dec 2019; 10:)

"Maternal vaccination and protective immunity against Zika virus vertical transmission."


PubMed Article URL: http://dx.doi.org/10.1038/s41467-019-13589-1

12-7311 was used in Flow cytometry/Cell sorting to investigate TCR usage in Leishmania-specific, IFN--producing CD4(+) T cells, showing that the magnitude of activation rather than TCR diversity determines the outcome of infection.

**Mouse / Not Cited**

Parasite immunology (Mar 2011; 33: 170)

"The magnitude of CD4(+) T-cell activation rather than TCR diversity determines the outcome of Leishmania infection in mice."

Author(s): Xin L, Wanderley JL, Wang Y, Vargas-Inchaustegui DA, Soong L

PubMed Article URL: http://dx.doi.org/10.1111/j.1365-3024.2010.01268.x

12-7311 was used in Flow cytometry/Cell sorting to identify Semaphorin 3E as a novel regulatory molecule in allergic asthma that acts upstream of proalлерgic events.

**Mouse / Not Cited**


"Semaphorin 3E Deficiency Exacerbates Airway Inflammation, Hyperresponsiveness, and Remodeling in a Mouse Model of Allergic Asthma."

Author(s): Movassagh H, Shan L, Mohammed A, Halayko AJ, Gounni AS

PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1601514

12-7311 was used in Flow cytometry/Cell sorting to study the role of MyD88 in the induction and progression of rheumatoid arthritis through its role in Th17 development.

**Mouse / 1:200**

The Journal of biological chemistry (Jun 2016; 291: 12358)

"Toll/Interleukin-1 Receptor Domain Derived from TcpC (TIR-TcpC) Ameliorates Experimental Autoimmune Arthritis by Down-modulating Th17 Cell Response."

Author(s): Pasi S, Kant R, Surolia A

PubMed Article URL: http://dx.doi.org/10.1074/jbc.M116.722801

12-7311 was used in Flow cytometry/Cell sorting to elucidate the role of LSECtin in pathogenesis of viral infection, showing that its absence led to increased frequency in intrahepatic CTLs, leading to accelerated liver adenovirus clearance.

**Mouse / Not Cited**

Journal of immunology (Baltimore, Md.; 1950) (Apr 2013; 190: 4185)

"Liver sinusoidal endothelial cell lectin inhibits CTL-dependent virus clearance in mouse models of viral hepatitis."


PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1203091

12-7311 was used in Flow cytometry/Cell sorting to provide insight into effector mechanisms utilized by protective cytolytic CD8 T cells directed against non-traditional cryptic epitopes during disease protection.

**Mouse / Not Cited**

Virology (Aug 2009; 390: 228)

"Defining the mechanism(s) of protection by cytolytic CD8 T cells against a cryptic epitope derived from a retroviral alternative reading frame."

Author(s): Rutkowski MR, Ho O, Green WR

PubMed Article URL: http://dx.doi.org/10.1016/j.virol.2009.05.003

12-7311 was used in Flow cytometry/Cell sorting to study the role of MyD88 in the induction and progression of rheumatoid arthritis through its role in Th17 development.

**Mouse / Not Cited**

Autophagy (Aug 2016; 12: 1390)

"Autophagy deficiency in myeloid cells increases susceptibility to obesity-induced diabetes and experimental colitis."

Author(s): Lee HY, Kim J, Quan W, Lee JC, Kim MS, Kim SH, Bae JW, Hur KY, Lee MS

PubMed Article URL: http://dx.doi.org/10.1080/15548627.2016.1184799
12-7311 was used in Flow cytometry/Cell sorting to reveal a previously unappreciated role for helminth-induced IL-4 in impairment of inKtT cell-mediated clearance of bacterial coexposure.

**Mouse / Not Cited**

Infection and immunity (May 2014; 82: 2087)

"Helminth-induced interleukin-4 abrogates invariant natural killer T cell activation-associated clearance of bacterial infection."

Author(s): Hsieh YJ, Fu CL, Hsieh MH

PubMed Article URL: http://dx.doi.org/10.1128/IAI.01578-13

12-7311-82 was used in Flow cytometry/Cell sorting to indicate that the coronary endothelial inflammation triggered TNFSF18 expression, which promoted p-STAT1 phosphorylation to activate the proteins VCAM1, ICAM1, ITGAD and ITGB3, thus exacerbating coronary microcirculation disorder in atherosclerotic mouse model.

**Mouse / Not Cited**

Drug development research (Feb 2021; 82: 115)

"The involvement of protein TNFSF18 in promoting p-STAT1 phosphorylation to induce coronary microcirculation disturbance in atherosclerotic mouse model."

Author(s): Gao J, Wang S, Liu S

PubMed Article URL: http://dx.doi.org/10.1002/ddr.21735

12-7311 was used in Flow cytometry/Cell sorting to elucidate the mechanisms behind the essential immune-regulatory functions that are required for the prevention of experimental GVHD.

**Mouse / Not Cited**

Journal of immunology (Baltimore, Md. : 1950) (Sep 2012; 189: 2890)

"IFN- production by allogeneic Foxp3+ regulatory T cells is essential for preventing experimental graft-versus-host disease."


PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1200413

12-7311 was used in Flow cytometry/Cell sorting to elucidate the mechanism of PUVA for treatment of psoriasis, showing that inhibition of the IL-23/Th17 axis and induction of Foxp3+ regulatory T cells involves CTLA4 signalling.

**Mouse / Not Cited**

Nature medicine (Mar 2018; 24: 262)

"DKK2 imparts tumor immunity evasion through -catenin-independent suppression of cytotoxic immune-cell activation."


PubMed Article URL: http://dx.doi.org/10.1038/nm.4496

12-7311 was used in Flow cytometry/Cell sorting to elucidate the mechanisms behind the essential immune-regulatory functions that are required for the prevention of experimental GVHD.

**Mouse / Not Cited**

Journal of immunology (Baltimore, Md. : 1950) (Jun 2010; 184: 7257)

"8-methoxypsoralen plus ultraviolet A therapy acts via inhibition of the IL-23/Th17 axis and induction of Foxp3+ regulatory T cells involving CTLA4 signaling in a psoriasis-like skin disorder."


PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.0903719

12-7311 was used in Flow cytometry/Cell sorting to develop a new experimental model where Pb yeast cells are injected through the intraperitoneal route and mice are evaluated over 120 days of infection.

**Mouse / Not Cited**

PloS one (May 2017; 11: )

"Severe Changes in Thymic Microenvironment in a Chronic Experimental Model of Paracoccidioidomycosis."


PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0164745

12-7311 was used in Flow cytometry/Cell sorting to investigate methods to achieve long-term -islet graft tolerance for diabetes type 1, showing that islets can be protected through expression of TGF-

**Mouse / Not Cited**

Diabetes (Sep 2013; 62: 3132)

"Protection of islet grafts through transforming growth factor--induced tolerogenic dendritic cells."

Author(s): Thomas DC, Wong FS, Zaccone P, Green EA, Wallberg M

PubMed Article URL: http://dx.doi.org/10.2337/db12-1740

12-7311 was used in Flow cytometry/Cell sorting to investigate the role of MK2 in dendritic cells, showing that it attenuates dendritic cell-mediated Th1 differentiation and autoimmune encephalomyelitis.

**Mouse / Not Cited**

Journal of immunology (Baltimore, Md. : 1950) (Jun 2012; 189: 2890)

"IFN- production by allogeneic Foxp3+ regulatory T cells is essential for preventing experimental graft-versus-host disease."


PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1200413

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**Mouse / Not Cited**

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"8-methoxypsoralen plus ultraviolet A therapy acts via inhibition of the IL-23/Th17 axis and induction of Foxp3+ regulatory T cells involving CTLA4 signaling in a psoriasis-like skin disorder."


PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.0903719

12-7311 was used in Flow cytometry/Cell sorting to develop a new experimental model where Pb yeast cells are injected through the intraperitoneal route and mice are evaluated over 120 days of infection.

**Mouse / Not Cited**

PloS one (May 2017; 11: )

"Severe Changes in Thymic Microenvironment in a Chronic Experimental Model of Paracoccidioidomycosis."


PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0164745

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**Mouse / Not Cited**

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"IFN- production by allogeneic Foxp3+ regulatory T cells is essential for preventing experimental graft-versus-host disease."


PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1200413

12-7311 was used in Flow cytometry/Cell sorting to elucidate the mechanisms behind the essential immune-regulatory functions that are required for the prevention of experimental GVHD.
12-7311 was used in Flow cytometry/Cell sorting to identify role of recombinant SV40 Tag protein immunization in initiating a cytotoxic T-lymphocyte response during tumor cell dissemination and growth.

**Mouse / Not Cited**

Journal of virology (Jan 2010; 84: 883)

"Tumor immunity against a simian virus 40 oncoprotein requires CD8+ T lymphocytes in the effector immune phase."

Author(s): Lowe DB, Shearer MH, Jumper CA, Bright RK, Kennedy RC

PubMed Article URL: http://dx.doi.org/10.1128/JVI.01512-09

12-7311 was used in Flow cytometry/Cell sorting to demonstrate that regulation of JNK phosphorylation plays a central role in Treg cell function.

**Mouse / Not Cited**

The Journal of biological chemistry (May 2012; 287: 17100)

"Loss of T regulatory cell suppression following signaling through glucocorticoid-induced tumor necrosis receptor (GITR) is dependent on c-Jun N-terminal kinase activation."

Author(s): Joetham A, Ohnishi H, Okamoto M, Takeda K, Schedel M, Domenico J, Dakhama A, Gelfand EW

PubMed Article URL: http://dx.doi.org/10.1074/jbc.M111.316943

12-7311 was used in Flow cytometry/Cell sorting to indicate that Nod1/2 signaling is critical for the optimal induction of DC cross-priming in vivo.

**Mouse / Not Cited**

Journal of immunology (Baltimore, Md.: 1950) (Jan 2010; 184: 736)

"Nucleotide oligomerization binding domain-like receptor signaling enhances dendritic cell-mediated cross-priming in vivo."


PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.0900726

12-7311 was used in Flow cytometry/Cell sorting to study T cell function in Eμ-myc transgenic mice that develop an aggressive B cell lymphoma with some similarities to human Burkitt-lymphoma.

**Mouse / Not Cited**

Oncoimmunology (Jan 2021; 7: )

"T cell inhibitory mechanisms in a model of aggressive Non-Hodgkin's Lymphoma."

Author(s): Hilmenyuk T, Ruckstuhl CA, Hayoz M, Berchtold C, Nuoffer JM, Solanki S, Keun HC, Beavis PA, Riether C, Ochsenbein AF

PubMed Article URL: http://dx.doi.org/10.1080/2162402X.2017.1365997

12-7311 was used in Flow cytometry/Cell sorting to investigate the potential detrimental role of mast cells in experimental autoimmune encephalomyelitis.

**Mouse / Not Cited**

Laboratory investigation; a journal of technical methods and pathology (Apr 2011; 91: 627)

"Exacerbated experimental autoimmune encephalomyelitis in mast-cell-deficient KitW−/W− mice."


PubMed Article URL: http://dx.doi.org/10.1038/ lainvest.2011.3

12-7311 was used in Flow cytometry/Cell sorting to suggest that induction of the erythropoietin-producing hepatoma (Eph) receptor, ephA2, is important for the survival of M. tuberculosis during latency.

**Mouse / Not Cited**

The Journal of infectious diseases (Jun 2009; 199: 1797)

"Mycobacterium tuberculosis interferes with the response to infection by inducing the host EphA2 receptor."

Author(s): Khounlotham M, Subbian S, Smith R, Cirillo SL, Cirillo JD

PubMed Article URL: http://dx.doi.org/10.1086/590096

12-7311 was used in Flow cytometry/Cell sorting to evaluate the potential detrimental role of mast cells in experimental autoimmune encephalomyelitis.

**Mouse / Not Cited**

Journal of immunology (Baltimore, Md.: 1950) (Jul 2010; 185: 956)

"Synergistic antitumor effects of regulatory T cell blockade combined with pemetrexed in murine malignant mesothelioma."

Author(s): Anraku M, Tagawa T, Wu L, Yun Z, Keshavjee S, Zhang L, Johnston MR, de Perrot M

PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.0900437

12-7311 was used in Flow cytometry/Cell sorting to suggest that induction of the erythropoietin-producing hepatoma (Eph) receptor, ephA2, is important for the survival of M. tuberculosis during latency.

**Mouse / Not Cited**

Journal of immunology (Baltimore, Md.: 1950) (Sep 2009; 182: 4277)

"Synergistic antitumor effects of regulatory T cell blockade combined with pemetrexed in murine malignant mesothelioma."

Author(s): Anraku M, Tagawa T, Wu L, Yun Z, Keshavjee S, Zhang L, Johnston MR, de Perrot M

PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.0900437

12-7311 was used in Flow cytometry/Cell sorting to evaluate the effect of multi-antigenic construct expressing three peptides AHC in stabilising advanced atherosclerosis in ApoBtm2Sgy/Ldlrtm1Her/J mice.

**Mouse / Not Cited**

Scientific reports (Jun 2017; 7: )

"Immune regulation by oral tolerance induces alternate activation of macrophages and reduces markers of plaque destabilization in ApoB<sup>sup>Im2Sgy</sup>/Ldr<sup>sup>Im1Her/J</sup> mice."

Author(s): Thota LN, Ponnusamy T, Philip S, Lu X, Mundkur L

PubMed Article URL: http://dx.doi.org/10.1038/s41598-017-04183-w
12-7311 was used in Flow cytometry/Cell sorting to investigate the relationship between PGE2 levels and Th17 cells in regard to disease outcomes in a mouse model of colitis.

Mouse / Not Cited

Mediators of inflammation (Apr 2015; 2014: )

"Antagonizing arachidonic acid-derived eicosanoids reduces inflammatory Th17 and Th1 cell-mediated inflammation and colitis severity."

Author(s): Monk JM, Turk HF, Fan YY, Callaway E, Weeks B, Yang P, McMurray DN, Chapkin RS

PubMed Article URL:http://dx.doi.org/10.1155/2014/917149

12-7311 was used in Flow cytometry/Cell sorting to study the role of nuclear IBNS in murine Th17 cell generation upon inflammation and infection.

Mouse / Not Cited


"IBNS regulates murine Th17 differentiation during gut inflammation and infection."


PubMed Article URL:http://dx.doi.org/10.4049/jimmunol.1401964

12-7311 was used in Flow cytometry/Cell sorting to investigate whether GCN2 attenuates tumour rejection in experimental B16 melanoma using T cell-specific Gcn2-KO mice.

Mouse / Not Cited

Oncoimmunology (Jan 2021; 5: )

"The stress kinase GCN2 does not mediate suppression of antitumor T cell responses by tryptophan catabolism in experimental melanomas."


PubMed Article URL:http://dx.doi.org/10.1080/2162402X.2016.1240858

12-7311 was used in Flow cytometry/Cell sorting to demonstrate the role of Burkholderia pseudomallei outer membrane vesicle vaccines in cross protection against inhalational glanders.

Mouse / Not Cited

Vaccines (Dec 2017; 5: )

"A Burkholderia pseudomallei Outer Membrane Vesicle Vaccine Provides Cross Protection Against Inhalational Glanders in Mice and Non-Human Primates."


PubMed Article URL:http://dx.doi.org/10.3390/vaccines5040049

12-7311 was used in Flow cytometry/Cell sorting to explore the role of IL-10 and IL-12/23 in the development of microbiota-dependent colitis.

Mouse / Not Cited


"Innate PI3K p110 regulates Th1/Th17 development and microbiota-dependent colitis."


PubMed Article URL:http://dx.doi.org/10.1080/2162402X.2016.1301533

12-7311 was used in Flow cytometry/Cell sorting to explore the opposing effects of interferon regulatory factor 1 and IRF4 on Th helper 9 cell differentiation.

Mouse / Not Cited

Nature communications (May 2017; 8: )

"Reciprocal regulation of the I9 locus by counteracting activities of transcription factors IRF1 and IRF4."


PubMed Article URL:http://dx.doi.org/10.1038/ncomms15366

12-7311 was used in Flow cytometry/Cell sorting to provide a framework to interrogate intra-tumour CD8(+) T-cell PD1 and immune PDL1 levels and response in human cancer.

Mouse / Not Cited

Cancer research (Sep 2015; 75: 3800)

"A Threshold Level of Intratumor CD8+ T-cell PD1 Expression Dictates Therapeutic Response to Anti-PD1."

Author(s): Ngiow SF, Young A, Jacquelot N, Yamazaki T, Enot D, Zitvogel L, Smyth MJ

PubMed Article URL:http://dx.doi.org/10.1158/0008-5472.CAN-15-1082

12-7311 was used in Flow cytometry/Cell sorting to investigate the phenotype of spinal cord-infiltrating CD4+ T lymphocytes involved in the maintenance of neuropathic pain in a murine model.

Mouse / Not Cited

Journal of pain & relief (Jun 2014; Suppl 3: )

"Phenotypic Identification of Spinal Cord-Infiltrating CD4<sup>+</sup> T Lymphocytes in a Murine Model of Neuropathic Pain."

Author(s): Dralleau K, Maddula S, Slaiy B, Nutile-McMenemy N, De Leo J, Cao L

PubMed Article URL:http://dx.doi.org/10.4172/2167-0846.S3-003

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Mouse / Not Cited

Nature communications (May 2017; 8: )

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PubMed Article URL:http://dx.doi.org/10.1038/ncomms15366

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Mouse / 1:400

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Mouse / Not Cited

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Author(s): Dralleau K, Maddula S, Slaiy B, Nutile-McMenemy N, De Leo J, Cao L

PubMed Article URL:http://dx.doi.org/10.4172/2167-0846.S3-003
12-7311 was used in Flow cytometry/Cell sorting to assess the importance of CD45RBhi T-cell depletion in murine cardiac allograft survival.

American journal of transplantation : official journal of the American Society of Transplantation and the American Society of Transplant Surgeons (Sep 2006; 6: 2023)
"Prolongation of allograft survival by administration of anti-CD45RB monoclonal antibody is due to alteration of CD45RBhi: CD45RBlow T-cell proportions."

12-7311 was used in Flow cytometry/Cell sorting to study how EPFR-induced oxidative stress resulted in increased presence of Tregs in the lungs and subsequent suppression of adaptive immune response to influenza.

Mouse / Not Cited

12-7311 was used in Immunocytochemistry to reveal a pivotal role for liver natural killer cells in the pathogenesis of virus-induced fulminant hepatic failure and acute-on-chronic liver failure.

Journal of immunology (Baltimore, Md. : 1950) (Jan 2010; 184: 466)
"Increased killing of liver NK cells by Fas/Fas ligand and NKG2D/NKG2D ligand contributes to hepatocyte necrosis in virus-induced liver failure."


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12-7311 was used in Flow cytometry/Cell sorting to study how RBCs of LMP7-deficient mice were more likely to deform in response to infection with malaria parasites.

Mouse / Not Cited

"Resistance to malaria by enhanced phagocytosis of erythrocytes in LMP7-deficient mice."

Author(s): Duan X, Imai T, Chou B, Tu L, Himeko K, Suzue K, Hirai M, Taniguchi T, Okada H, Shimokawa C, Hisaeda H

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12-7311 was used in Flow cytometry/Cell sorting to indicate that respiratory syncytial virus infection can increase C5a and C5aR expression in the pathogenesis of infected, asthmatic mice.

Mouse / Not Cited

"Respiratory Syncytial Virus Exacerbates OVA-mediated asthma in mice through C5a-C5aR regulating CD4<sup>+</sup>/sup>T cells Immune Responses."


PubMed Article URL:http://dx.doi.org/10.1038/s41598-017-15471-w

12-7311 was used in Flow cytometry/Cell sorting to reveal that regorafenib and NU7441 influence the immunobiology of tumour and T cells, enhancing the efficacy of various immunotherapies.

Mouse / Not Cited

"A Multikinase and DNA-PK Inhibitor Combination Immunomodulates Melanomas, Suppresses Tumor Progression, and Enhances Immunotherapies."

Author(s): Tsai AK, Khan AY, Worgo CE, Wang LL, Liang Y, Davila E

PubMed Article URL:http://dx.doi.org/10.1158/2326-6066.CIR-17-0009

12-7311 was used in Flow cytometry/Cell sorting to investigate the involvement of T cells in the progression to heart failure using a transverse aortic constriction (TAC) model.

Mouse / Not Cited

"CD4<sup>+</sup> T cells promote the transition from hypertrophy to heart failure during chronic pressure overload."

Author(s): Laroumanie F, Douin-Echinard V, Pozzo J, Lairez O, Tortosa F, Vinel C, Delage C, Calise D, Dutaur M, Parini A, Pizzinat N

PubMed Article URL:http://dx.doi.org/10.1161/CIRCULATIONAHA.113.007101

12-7311 was used in Flow cytometry/Cell sorting to study the cellular cross-talk between natural killer T cells and natural killer cells.

Mouse / Not Cited

"Activated NKT cells imprint NK-cell differentiation, functionality and education."

Author(s): Riese P, Trittel S, May T, Cinic-Sain L, Chambers BJ, Guzmán CA

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12-7311 was used in Flow cytometry/Cell sorting to define the contribution of DCs to T cell-independent innate defence in immune-privileged CNS upon infection with neurotropic viruses.

Mouse / Not Cited

"CD11c<sup>(hi)</sup> Dendritic Cells Regulate Ly-6C<sup>(hi)</sup> Monocyte Differentiation to Preserve Immune-privileged CNS in Lethal Neuroinflammation."

Author(s): Kim JH, Choi JY, Kim SB, Uyangaa E, Patil AM, Han YW, Park SY, Lee JH, Kim K, Eo SK

PubMed Article URL:http://dx.doi.org/10.1038/srep17548

12-7311 was used in Flow cytometry/Cell sorting to study the mechanism by which GITR stimulation of naturally occurring T regulatory cells triggers the loss of regulatory function while concomitantly gaining pathogenic CD4<sup>(+)</sup> effector function.

Mouse / Not Cited

"JNK2 regulates the functional plasticity of naturally occurring T regulatory cells and the enhancement of lung allergic responses."


PubMed Article URL:http://dx.doi.org/10.1161/CIRCULATIONAHA.114.007104

12-7311 was used in Flow cytometry/Cell sorting to indicate that regorafenib and NU7441 influence the immunobiology of tumour and T cells, enhancing the efficacy of various immunotherapies.

Mouse / Not Cited

"IL-15 is critical for the maintenance and innate functions of self-specific CD8<sup>(+)</sup> T cells."

Author(s): Itsumi M, Yoshikai Y, Yamada H

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12-7311 was used in Flow cytometry/Cell sorting to identify that co-immunization with DNA and multimeric E2 scaffolds offers a highly effective rapid, specific, and sustained immune response.

Mouse / Not Cited

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PubMed Article URL:http://dx.doi.org/10.1371/journal.pone.0031464

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Mouse / Not Cited

The Journal of allergy and clinical immunology (Apr 2017; 139: 1331)

"Inducible and naturally occurring T cells enhance lung allergic responses through divergent transcriptional pathways."

Author(s):Joetham A,Schedel M,O'Connor BP,Kim S,Takeda K,Abbott J,Gelfand EW

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12-7311 was used in Flow cytometry/Cell sorting to explore the effects of the costimulation of GalCer and TLR agonists on the immune system and cytokine production.

Mouse / Not Cited

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"Toll-like receptor agonists and alpha-galactosylceramide synergistically enhance the production of interferon-gamma in murine splenocytes."

Author(s):Ando T,Ito H,Ohkita H,Seishima M

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Mouse / Not Cited

Immunology and cell biology (Apr 2012; 90: 396)

"CD4 T cells play important roles in maintaining IL-17-producing T-cell subsets in naive animals." 

Author(s):Do JS,Visperas A,O'Brien RL,Min B

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12-7311 was used in Flow cytometry/Cell sorting to study IL-22 levels during plasmodial infection in mice and the effect on an adaptive immune response.

Mouse / Not Cited

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"IL-22 dampens the T cell response in experimental malaria."

Author(s):Sellau J,Alvarado CF,Hoenow S,Mackroth MS,Kleinschmidt D,Huber S,Jacobs T

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Mouse / Not Cited

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Author(s):Hashimoto-Kataoka T,Hosen N,Sonobe T,Arita Y,Yasui T,Masaki T,Miyagawa S,Nakaoka Y

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Mouse / Not Cited

The Journal of experimental medicine (Aug 2007; 204: 1787)

"An intense form of homeostatic proliferation of naive CD8+ cells driven by IL-2."


PubMed Article URL:http://dx.doi.org/10.1084/jem.20070740

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Mouse / Not Cited

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Author(s):Lee SH,Charmoy M,Roman A,Pauw A,Chaves MM,Cope FO,Ralph DA,Sacks DL

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Mouse / Not Cited

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"Immunostimulatory Effects Triggered by Enterococcus faecalis CECT7121 Probiotic Strain Involve Activation of Dendritic Cells and Interferon-Gamma Production."
Author(s): Molina MA, Díaz AM, Hesse C, Ginter W, Gentilini MV, Nuñez GG, Canellada AM, Sparwasser T, Berlod L, Castro MS, Manghi MA
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Mouse / Not Cited

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Author(s): Shoji M, Yoshizaki S, Mizuguchi H, Okuda K, Shimada M
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Mouse / Not Cited

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"Epigenetic alterations may regulate temporary reversal of CD4(+) T cell activation caused by trichloroethylene exposure."
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Mouse / Not Cited

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"Qa-1-Restricted CD8<sup>+</sup> T Cells Can Compensate for the Absence of Conventional T Cells during Viral Infection."
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Mouse / 1:150

"Rediscovering peritoneal macrophages in a murine endometriosis model."
Author(s): Yuan M, Li D, An M, Li Q, Zhang L, Wang G
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Mouse / Not Cited

"Resistance to dengue virus infection in mice is potentiated by CXCL10 and is independent of CXCL10-mediated leukocyte recruitment."
Author(s): Ip PP, Liao F
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Mouse / Not Cited

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"Targeting the inhibitory receptor CTLA-4 on T cells increased abscopal effects in murine mesothelioma model."
Author(s): Wu L, Wu MO, De la Maza L, Yun Z, Yu J, Zhao Y, Cho J, de Perrot M
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Mouse / Not Cited

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Mouse / Not Cited

Frontiers in immunology (Sep 2019; 9: )

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PubMed Article URL:http://dx.doi.org/10.3389/fimmu.2018.02555

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Mouse / Not Cited

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"Successful colon cancer eradication after chemotherapy is associated with profound phenotypic change of intratumoral myeloid cells."

Author(s): Medina-Echeverz J, Fioravanti J, Zabala M, Ardaiz N, Prieto J, Berraondo P

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Mouse / Not Cited


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Author(s): Ribot JC, Debarros A, Mancio-Silva L, Pamplosa A, Silva-Santos B

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Mouse / 1:200

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"Process- and product-related impurities in the ChAdOx1 nCov-19 vaccine."

Author(s): Krutzke L, Rösler R, Allmendinger E, Engler T, Wiese S, Kochanek S

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Mouse / Not Cited

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Mouse / 1:100

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"ER<alpha> and ER<beta> Differentially Regulate NKT and V<alpha>4<sup></sup> T-cell Activation and T-regulatory Cell Response in Coxsackievirus B3 Infected Mice."

Author(s): Huber S

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Mouse / Not Cited

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"In vivo expansion of T reg cells with IL-2-mAb complexes: induction of resistance to EAE and long-term acceptance of islet allografts without immunosuppression."

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Mouse / Not Cited

Journal of immunology (Baltimore, Md. : 1950) (Apr 2014; 192: 3374)

"Central role of conventional dendritic cells in regulation of bone marrow release and survival of neutrophils."


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"Ontogeny and localization of the cells produce IL-2 in healthy animals."

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Mouse / Not Cited

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Mouse / Not Cited

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"Host-derived CD4+ T cells attenuate stem cell-mediated transfer of autoimmune arthritis in lethally irradiated C57BL/6.g7 mice."

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"Targeting of antigens to B cells augments antigen-specific T-cell responses and breaks immune tolerance to tumor-associated antigen MUC1."

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Mouse / Not Cited

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**Mouse / Not Cited**

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Author(s): Zecher D,Li Q,Oberbarnscheidt MH,Demetris AJ,Shliomich WD,Rothstein DM,Lakkis FG

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**Mouse / Not Cited**

Scientific reports (Feb 2016; 6:)

"mTOR masters monocytc myeloid-derived suppressor cells in mice with allografts or tumors."


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12-7311 was used in Flow cytometry/Cell sorting to investigate the expansion of immunoregulatory cells as long-term sequela of sepsis with or without IL-7 treatment.

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**Mouse / Not Cited**

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Author(s): Chaitra MG,Shaila MS,Nayak R

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**Mouse / Not Cited**

Virology journal (Sep 2012; 9:)

"Sublingual immunization with recombinant adenovirus encoding SARS-CoV spike protein induces systemic and mucosal immunity without redirection of the virus to the brain."

Author(s): Shim BS,Stadler K,Nguyen HH,Yun CH,Kim DW,Chang J,Czerkinsky C,Song MK

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**Mouse / Not Cited**

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Immunity (Jun 2015; 42: 1130)

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**Mouse / Not Cited**

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Author(s): Zhan R,Han Q,Zhang C,Tian Z,Zhang J

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Author(s):Barrett NA,Rahman OM,Fernandez JM,Parsons MW,Xing W,AustenKF,Kanaoka Y
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PloS one (Jul 2017; 11: )
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Mouse / Not Cited

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"Macrophage PTEN regulates expression and secretion of arginase I modulating innate and adaptive immune responses."
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Not Applicable / Not Cited

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"Cross-presentation of male seminal fluid antigens elicits T cell activation to initiate the female immune response to pregnancy."
Author(s):Moldenhauer LM,Diener KR,Thing DM,Brown MP,Hayball JD,Robertson SA
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10255 Science Center Drive
San Diego, CA 92121
Mouse / Not Cited

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"Transplantation survival is maintained by granzyme B+ regulatory cells and adaptive regulatory T cells."
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Author(s):Gondek DC,DeVries V,Nowak EC,Lu LF,Bennett KA,Scott ZA,Noelle RJ
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1 Neutralization References

Species / Dilution Summary


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10255 Science Center Drive
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"IFN-gamma decreases CTL generation by limiting IL-2 production: A feedback loop controlling effector cell production."

Author(s): Hidalgo LG, Urmson J, Halloran PF

PubMed Article URL: http://dx.doi.org/10.1111/j.1600-6143.2005.00761.x